Atmospheric Analysis & Consulting, Inc.

CLIENT	: Soil Water Air Protection Enterprise
PROJECT NAME	: Bridgeton Sanitary Landfill Air Quality Assessment
AAC PROJECT NO.	: 130456
REPORT DATE	: 04/25/2013

On April 17, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) Six-Liter Summa Canisters for Volatile Organic Compounds analysis by EPA method TO-15. Upon receipt each sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab ID	Return Pressure (mmHga)
BZ-1-Canister	130456-62447	567.5
F-1-Canister	130456-62456	684.4
F-2-Canister	130456-62465	783.0
F-3-Canister	130456-62474	706.4

An initial reading of each canister's vacuum was taken and recorded. Subsequently, each canister was brought to positive pressure using UHP-He and the final pressure was recorded.

TO-15 Analysis - Up to a 500 mL aliquot of sample is concentrated, put through a water and CO_2 management system, cryofocused and injected into the GC/MS (full scan mode) for analysis following EPA Method TO-15 as specified in the SOW.

No problems were encountered during receiving, preparation and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# TO.15.10.

I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized the release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.

Marcus Hueppe
Laboratory Director

This report consists of 97 pages.

ACCREDITED IN ACCORDANCE WITH nelac Certificate #E87837

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

CANISTER PRESSURE LOG

Client: Soil Water Air Protection Ent Project No.: 130456

Date: 4/17/2013

Canister #	Sample #	Initial Pressure	Final Pressure
701	62447	567.5	1015.0
744	62456	684.4	1024.5
787	62465	783.0	1020.8
770	62474	706.4	1021.1

1

FAC# 130456

Amended*

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE

Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011

Date: 4/17/13 Page 1 of 4

Project Manager: PAUL ROSENFELD, PH.D.

Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By: Sampler Signature:

REQUESTED TESTS / ANALYSES

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxlyic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
62447	BZ-1 – Canister		4/16/13	15:48	X	X								X				1 SUMMA
62448	– DNPH			15:56			X											1 TUBE
62449	– Acid			16:01				X										1 TUBE
62450	– HCL			16:02					X									1 TUBE
62451	– Ammonia			15:55						X								1 TUBE
62452	– SO2			16:00							X							1 TUBE
62453	– HCN			16:03								X						1 TUBE
62454	– Amines			15:54									X					1 TUBE
62455	– Mercury		V	15:58												X		1 TUBE

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.

QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By:	Date: 4/17/13	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/17/13	Time: 0940

SOIL / WATER / AIR PROTECTION ENTERPRISE

AAC# 130456

AMENDED *

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE

Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011

Date: 4/17/13 Page 2 of 4

Project Manager: PAUL ROSENFELD, PH.D.

Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By: | Sampler Signature:

REQUESTED TESTS / ANALYSES

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCs - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
62456	F-1 - Canister		4/16/13	13:12	X	X								X				1 SUMMA
62457	- DNPH			13:36			X											1 TUBE
62458	- Acids			13:30				X										1 TUBE
62459	- HCL			13:34					X									1 TUBE
62460	- Ammonia			13:28						X								1 TUBE
62461	- SO2			13:39							X							1 TUBE
62462	- HCN			13:22								X						1 TUBE
62463	- Amines			13:17									X					1 TUBE
62464	- Mercury			13:24												X		1 TUBE

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.

QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By: *	Date: 4/17/13	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/17/13	Time: 0940

SOIL / WATER / AIR PROTECTION ENTERPRISE

AAC# 130456

AMENDED

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE

Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011

Date: 4/17/13 Page 3 of 4

Project Manager: PAUL ROSENFELD, PH.D.

Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By:

Sampler Signature:

REQUESTED TESTS / ANALYSES

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
62465	F-2 - Canister		4/16/13	14:12	X	X								X				1 SUMMA
62466	" - DNPH		"	14:23			X											1 TUBE
62467	" - Acids		"	14:19				X										1 TUBE
62468	" - HCL		"	14:39					X									1 TUBE
62469	" - Ammonia		"	14:45						X								1 TUBE
62470	" - SO2		"	14:31							X							1 TUBE
62471	" - HCN		"	14:34								X						1 TUBE
62472	" - Amines		"	14:50									X					1 TUBE
62473	" - Mercury		"	14:45												X		1 TUBE

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.

QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By:	Date: 4/17/13	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/17/13	Time: 0940

SOIL / WATER / AIR PROTECTION ENTERPRISE

AAC# 130456

AMENDED*

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE

Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011

Date: 4/17/13 Page 4 of 4

Project Manager: PAUL ROSENFELD, PH.D.

Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By:

Sampler Signature:

REQUESTED TESTS / ANALYSES

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
62474	F-3 - Canister		4/16/13	15:30	X	X								X				1 SUMMA
62475	- DNPH			15:20			X											1 TUBE
62476	- Acids			15:14				X										1 TUBE
62477	- HCL			15:10					X									1 TUBE
62478	- Ammonia			15:22						X								1 TUBE
62479	- SO2			15:26							X							1 TUBE
62480	- HCN			15:06								X						1 TUBE
62481	- Amines			15:29									X					1 TUBE
62482	- Mercury			15:18												X		1 TUBE

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.

QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By:	Date: 4/17/13	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/17/13	Time: 0940

SOIL / WATER / AIR PROTECTION ENTERPRISE

AAC# 130456

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE	Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011
Project Manager: PAUL ROSENFELD, PH.D.	Date: 4/17/13 Page 1 of 1
Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401	
Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT	
Sampled By:	Sampler Signature:

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCs - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
62486	ALDEHYDES		4/17/13				X											
62487	AMINES		"										X					
62488	AMMONIA		"							X								
62489	CARBOXYLIC ACIDS		"					X										
62490	HYDROGEN CHLORIDE		"						X									
62491	HYDROGEN CYANIDE		"									X						
62492	MERCURY		"													X		
62493	SULFUR DIOXIDE		"								X							

REQUESTED TESTS / ANALYSES

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks.	QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By: John Black	Date: 4/17/13	Time: 4 PM	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/18/13	Time: 1235

- FEDEX

SOIL / WATER / AIR PROTECTION ENTERPRISE

TO-15 REPORTS

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130456
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 04/17/2013
DATE REPORTED : 04/25/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	BZ-1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	F-1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130456-62447				130456-62456				
Date Sampled	04/16/2013				04/16/2013				
Date Analyzed	04/24/2013				04/24/2013				
Can Dilution Factor	1.79				1.50				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	0.34	J	1.0	0.90	<SRL	U	500	374	0.5
Propene	7.46		1.0	1.80	201000		50000	74847	1.0
Dichlorodifluoromethane	0.61	J	1.0	0.90	<SRL	U	500	374	0.5
Chloromethane	0.75	J	1.0	0.90	4850		2500	1871	0.5
Dichlorotetrafluoroethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Vinyl Chloride	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Methanol	96.5		2.0	17.9	2060000		50000	374233	5.0
1,3-Butadiene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Bromomethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Chloroethane	<SRL	U	1.0	0.90	739		500	374	0.5
Dichlorofluoromethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Ethanol	18.5		1.0	3.60	168000		50000	149693	2.0
Vinyl Bromide	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Acetone	40.6		2.0	7.20	259000		50000	149693	2.0
Trichlorofluoromethane	0.30	J	1.0	0.90	<SRL	U	500	374	0.5
2-Propanol (IPA)	75.7		2.0	7.20	51700		2500	7485	2.0
Acrylonitrile	<SRL	U	1.0	1.80	<SRL	U	500	749	1.0
1,1-Dichloroethene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Methylene Chloride (DCM)	1.31	J	1.0	1.80	<SRL	U	500	749	1.0
Allyl Chloride	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Carbon Disulfide	NR		1.0	0.90	NR		500	374	0.5
Trichlorotrifluoroethane	0.11	J	1.0	0.90	<SRL	U	500	374	0.5
trans-1,2-Dichloroethene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,1-Dichloroethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Vinyl Acetate	<SRL	U	1.0	1.80	<SRL	U	500	749	1.0
2-Butanone (MEK)	5.20		1.0	1.80	190000		50000	74847	1.0
cis-1,2-Dichloroethene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Hexane	0.91		1.0	0.90	1850		500	374	0.5
Chloroform	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Ethyl Acetate	1.36		1.0	0.90	9510		2500	1871	0.5
Tetrahydrofuran	2.18		1.0	0.90	106000		50000	37423	0.5
1,2-Dichloroethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,1,1-Trichloroethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130456
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 04/17/2013
DATE REPORTED : 04/25/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	BZ-1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	F-1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130456-62447				130456-62456				
Date Sampled	04/16/2013				04/16/2013				
Date Analyzed	04/24/2013				04/24/2013				
Can Dilution Factor	1.79				1.50				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	1.27		1.0	0.90	246000		50000	37423	0.5
Carbon Tetrachloride	0.09	J	1.0	0.90	<SRL	U	500	374	0.5
Cyclohexane	0.16	J	1.0	0.90	1180		500	374	0.5
1,2-Dichloropropane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Bromodichloromethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,4-Dioxane	<SRL	U	1.0	0.90	2430		500	374	0.5
Trichloroethene (TCE)	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
2,2,4-Trimethylpentane	0.43	J	1.0	0.90	1160		500	374	0.5
Heptane	0.32	J	1.0	0.90	2950		500	374	0.5
cis-1,3-Dichloropropene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
4-Methyl-2-pentanone (MiBK)	0.14	J	1.0	0.90	5540		2500	1871	0.5
trans-1,3-Dichloropropene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,1,2-Trichloroethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Toluene	1.95		1.0	0.90	30500		2500	1871	0.5
2-Hexanone (MBK)	<SRL	U	1.0	0.90	3450		500	374	0.5
Dibromochloromethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,2-Dibromoethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Tetrachloroethene (PCE)	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Chlorobenzene	<SRL	U	1.0	0.90	811		500	374	0.5
Ethylbenzene	0.30	J	1.0	0.90	9960		2500	1871	0.5
m & p-Xylenes	0.97	J	1.0	1.80	18700		2500	3742	1.0
Bromoform	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Styrene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
o-Xylene	0.34	J	1.0	0.90	6060		2500	1871	0.5
4-Ethyltoluene	0.14	J	1.0	0.90	1060		500	374	0.5
1,3,5-Trimethylbenzene	0.11	J	1.0	0.90	1300		500	374	0.5
1,2,4-Trimethylbenzene	0.32	J	1.0	0.90	3850		2500	1871	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,3-Dichlorobenzene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,4-Dichlorobenzene	<SRL	U	1.0	0.90	1390		500	374	0.5
1,2-Dichlorobenzene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
1,2,4-Trichlorobenzene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
Hexachlorobutadiene	<SRL	U	1.0	0.90	<SRL	U	500	374	0.5
BFB-Surrogate Std. % Recovery	104%				113%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratoy Director

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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130456
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 04/17/2013
DATE REPORTED : 04/25/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	BZ-1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	F-1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130456-62447				130456-62456				
Date Sampled	04/16/2013				04/16/2013				
Date Analyzed	04/24/2013				04/24/2013				
Can Dilution Factor	1.79				1.50				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	1.2	J	1.0	3.2	<SRL	U	500	1324	1.8
Propene	12.8		1.0	3.1	345000		50000	128816	1.7
Dichlorodifluoromethane	3.0	J	1.0	4.4	<SRL	U	500	1851	2.5
Chloromethane	1.6	J	1.0	1.8	10000		2500	3865	1.0
Dichlorotetrafluoroethane	<SRL	U	1.0	6.3	<SRL	U	500	2616	3.5
Vinyl Chloride	<SRL	U	1.0	2.3	<SRL	U	500	957	1.3
Methanol	126		2.0	23.4	2700000		50000	490408	6.6
1,3-Butadiene	<SRL	U	1.0	2.0	<SRL	U	500	828	1.1
Bromomethane	<SRL	U	1.0	3.5	<SRL	U	500	1453	1.9
Chloroethane	<SRL	U	1.0	2.4	1950		500	987	1.3
Dichlorofluoromethane	<SRL	U	1.0	3.8	<SRL	U	500	1575	2.1
Ethanol	34.9		1.0	6.7	317000		50000	282061	3.8
Vinyl Bromide	<SRL	U	1.0	3.9	<SRL	U	500	1637	2.2
Acetone	96.5		2.0	17.0	616000		50000	355592	4.8
Trichlorofluoromethane	1.7	J	1.0	5.0	<SRL	U	500	2103	2.8
2-Propanol (IPA)	186		2.0	17.6	127000		2500	18398	4.9
Acrylonitrile	<SRL	U	1.0	3.9	<SRL	U	500	1624	2.2
1,1-Dichloroethene	<SRL	U	1.0	3.5	<SRL	U	500	1484	2.0
Methylene Chloride (DCM)	4.5	J	1.0	6.2	<SRL	U	500	2600	3.5
Allyl Chloride	<SRL	U	1.0	2.8	<SRL	U	500	1171	1.6
Carbon Disulfide	NR		1.0	2.8	NR		500	1165	1.6
Trichlorotrifluoroethane	0.8	J	1.0	6.9	<SRL	U	500	2868	3.8
trans-1,2-Dichloroethene	<SRL	U	1.0	3.5	<SRL	U	500	1484	2.0
1,1-Dichloroethane	<SRL	U	1.0	3.6	<SRL	U	500	1515	2.0
Methyl Tert Butyl Ether (MTBE)	<SRL	U	1.0	3.2	<SRL	U	500	1349	1.8
Vinyl Acetate	<SRL	U	1.0	6.3	<SRL	U	500	2635	3.5
2-Butanone (MEK)	15.4		1.0	5.3	561000		50000	220745	2.9
cis-1,2-Dichloroethene	<SRL	U	1.0	3.5	<SRL	U	500	1484	2.0
Hexane	3.2		1.0	3.2	6510		500	1319	1.8
Chloroform	<SRL	U	1.0	4.4	<SRL	U	500	1827	2.4
Ethyl Acetate	4.9		1.0	3.2	34300		2500	6743	1.8
Tetrahydrofuran	6.4		1.0	2.6	311000		50000	110373	1.5
1,2-Dichloroethane	<SRL	U	1.0	3.6	<SRL	U	500	1515	2.0
1,1,1-Trichloroethane	<SRL	U	1.0	4.9	<SRL	U	500	2042	2.7

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130456
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 04/17/2013
DATE REPORTED : 04/25/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	BZ-1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	F-1-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130456-62447				130456-62456				
Date Sampled	04/16/2013				04/16/2013				
Date Analyzed	04/24/2013				04/24/2013				
Can Dilution Factor	1.79				1.50				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	4.1		1.0	2.9	786000		50000	119556	1.6
Carbon Tetrachloride	0.6	J	1.0	5.6	<SRL	U	500	2354	3.1
Cyclohexane	0.6	J	1.0	3.1	4080		500	1288	1.7
1,2-Dichloropropane	<SRL	U	1.0	4.1	<SRL	U	500	1730	2.3
Bromodichloromethane	<SRL	U	1.0	6.0	<SRL	U	500	2508	3.4
1,4-Dioxane	<SRL	U	1.0	3.2	8750		500	1349	1.8
Trichloroethene (TCE)	<SRL	U	1.0	4.8	<SRL	U	500	2011	2.7
2,2,4-Trimethylpentane	2.0	J	1.0	4.2	5430		500	1748	2.3
Heptane	1.3	J	1.0	3.7	12100		500	1534	2.0
cis-1,3-Dichloropropene	<SRL	U	1.0	4.1	<SRL	U	500	1699	2.3
4-Methyl-2-pentanone (MiBK)	0.6	J	1.0	3.7	22700		2500	7665	2.0
trans-1,3-Dichloropropene	<SRL	U	1.0	4.1	<SRL	U	500	1699	2.3
1,1,2-Trichloroethane	<SRL	U	1.0	4.9	<SRL	U	500	2042	2.7
Toluene	7.4		1.0	3.4	115000		2500	7052	1.9
2-Hexanone (MBK)	<SRL	U	1.0	3.7	14100		500	1533	2.0
Dibromochloromethane	<SRL	U	1.0	7.6	<SRL	U	500	3188	4.3
1,2-Dibromoethane	<SRL	U	1.0	6.9	<SRL	U	500	2875	3.8
Tetrachloroethene (PCE)	<SRL	U	1.0	6.1	<SRL	U	500	2538	3.4
Chlorobenzene	<SRL	U	1.0	4.1	3730		500	1723	2.3
Ethylbenzene	1.3	J	1.0	3.9	43300		2500	8125	2.2
m & p-Xylenes	4.2	J	1.0	7.8	81400		2500	16249	4.3
Bromoform	<SRL	U	1.0	9.2	<SRL	U	500	3869	5.2
Styrene	<SRL	U	1.0	3.8	<SRL	U	500	1594	2.1
1,1,2,2-Tetrachloroethane	<SRL	U	1.0	6.1	<SRL	U	500	2569	3.4
o-Xylene	1.5	J	1.0	3.9	26300		2500	8125	2.2
4-Ethyltoluene	0.7	J	1.0	4.4	5200		500	1840	2.5
1,3,5-Trimethylbenzene	0.5	J	1.0	4.4	6390		500	1840	2.5
1,2,4-Trimethylbenzene	1.6	J	1.0	4.4	18900		2500	9198	2.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	1.0	4.6	<SRL	U	500	1938	2.6
1,3-Dichlorobenzene	<SRL	U	1.0	5.4	<SRL	U	500	2250	3.0
1,4-Dichlorobenzene	<SRL	U	1.0	5.4	8370		500	2250	3.0
1,2-Dichlorobenzene	<SRL	U	1.0	5.4	<SRL	U	500	2250	3.0
1,2,4-Trichlorobenzene	<SRL	U	1.0	6.6	<SRL	U	500	2777	3.7
Hexachlorobutadiene	<SRL	U	1.0	9.5	<SRL	U	500	3991	5.3
BFB-Surrogate Std. % Recovery	104%				113%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
SQL - Sample Quantitation Limit is the Limit Of Quantitation (LOQ) x Dilution Factors.
NR - Not Reported on these analysis.

Marcus Hueppe
Laboratoy Director

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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130456
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 04/17/2013
DATE REPORTED : 04/25/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	F-2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	F-3-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130456-62465				130456-62474				
Date Sampled	04/16/2013				04/16/2013				
Date Analyzed	04/24/2013				04/24/2013				
Can Dilution Factor	1.30				1.45				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	440		500	326	<SRL	U	500	361	0.5
Propene	174000		50000	65185	135000		2500	3614	1.0
Dichlorodifluoromethane	596		500	326	425		500	361	0.5
Chloromethane	4740		2500	1630	4020		2500	1807	0.5
Dichlorotetrafluoroethane	<SRL	U	500	326	<SRL	U	500	361	0.5
Vinyl Chloride	<SRL	U	500	326	<SRL	U	500	361	0.5
Methanol	95700		2500	16296	24600		2500	18069	5.0
1,3-Butadiene	<SRL	U	500	326	<SRL	U	500	361	0.5
Bromomethane	<SRL	U	500	326	<SRL	U	500	361	0.5
Chloroethane	3940		2500	1630	1090		500	361	0.5
Dichlorofluoromethane	<SRL	U	500	326	<SRL	U	500	361	0.5
Ethanol	49000		2500	6519	2380		500	1446	2.0
Vinyl Bromide	<SRL	U	500	326	<SRL	U	500	361	0.5
Acetone	586000		50000	130370	38100		2500	7228	2.0
Trichlorofluoromethane	<SRL	U	500	326	<SRL	U	500	361	0.5
2-Propanol (IPA)	263000		50000	130370	2030		500	1446	2.0
Acrylonitrile	<SRL	U	500	652	<SRL	U	500	723	1.0
1,1-Dichloroethene	<SRL	U	500	326	<SRL	U	500	361	0.5
Methylene Chloride (DCM)	<SRL	U	500	652	<SRL	U	500	723	1.0
Allyl Chloride	<SRL	U	500	326	<SRL	U	500	361	0.5
Carbon Disulfide	NR		500	326	NR		500	361	0.5
Trichlorotrifluoroethane	<SRL	U	500	326	<SRL	U	500	361	0.5
trans-1,2-Dichloroethene	<SRL	U	500	326	<SRL	U	500	361	0.5
1,1-Dichloroethane	<SRL	U	500	326	<SRL	U	500	361	0.5
Methyl Tert Butyl Ether (MTBE)	865		500	326	<SRL	U	500	361	0.5
Vinyl Acetate	<SRL	U	500	652	<SRL	U	500	723	1.0
2-Butanone (MEK)	706000		50000	65185	35100		2500	3614	1.0
cis-1,2-Dichloroethene	360		500	326	<SRL	U	500	361	0.5
Hexane	1490		500	326	3900		2500	1807	0.5
Chloroform	<SRL	U	500	326	<SRL	U	500	361	0.5
Ethyl Acetate	66800		50000	32593	691		500	361	0.5
Tetrahydrofuran	732000		50000	32593	42300		2500	1807	0.5
1,2-Dichloroethane	<SRL	U	500	326	<SRL	U	500	361	0.5
1,1,1-Trichloroethane	<SRL	U	500	326	<SRL	U	500	361	0.5

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130456
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 04/17/2013
DATE REPORTED : 04/25/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	F-2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	F-3-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130456-62465				130456-62474				
Date Sampled	04/16/2013				04/16/2013				
Date Analyzed	04/24/2013				04/24/2013				
Can Dilution Factor	1.30				1.45				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	909000		50000	32593	135000		2500	1807	0.5
Carbon Tetrachloride	367		500	326	<SRL	U	500	361	0.5
Cyclohexane	3980		2500	1630	860		500	361	0.5
1,2-Dichloropropane	2080		500	326	<SRL	U	500	361	0.5
Bromodichloromethane	<SRL	U	500	326	<SRL	U	500	361	0.5
1,4-Dioxane	<SRL	U	500	326	<SRL	U	500	361	0.5
Trichloroethene (TCE)	347		500	326	<SRL	U	500	361	0.5
2,2,4-Trimethylpentane	2060		500	326	364		500	361	0.5
Heptane	6070		2500	1630	2680		500	361	0.5
cis-1,3-Dichloropropene	<SRL	U	500	326	<SRL	U	500	361	0.5
4-Methyl-2-pentanone (MiBK)	55700		2500	1630	2270		500	361	0.5
trans-1,3-Dichloropropene	<SRL	U	500	326	<SRL	U	500	361	0.5
1,1,2-Trichloroethane	<SRL	U	500	326	<SRL	U	500	361	0.5
Toluene	213000		50000	32593	19700		2500	1807	0.5
2-Hexanone (MBK)	8650		2500	1630	1130		500	361	0.5
Dibromochloromethane	<SRL	U	500	326	<SRL	U	500	361	0.5
1,2-Dibromoethane	<SRL	U	500	326	<SRL	U	500	361	0.5
Tetrachloroethene (PCE)	931		500	326	<SRL	U	500	361	0.5
Chlorobenzene	1730		500	326	<SRL	U	500	361	0.5
Ethylbenzene	76500		50000	32593	8810		2500	1807	0.5
m & p-Xylenes	135000		50000	65185	12900		2500	3614	1.0
Bromoform	<SRL	U	500	326	<SRL	U	500	361	0.5
Styrene	3010		500	326	<SRL	U	500	361	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	500	326	<SRL	U	500	361	0.5
o-Xylene	34500		2500	1630	6120		2500	1807	0.5
4-Ethyltoluene	4480		2500	1630	690		500	361	0.5
1,3,5-Trimethylbenzene	3760		2500	1630	956		500	361	0.5
1,2,4-Trimethylbenzene	6720		2500	1630	2000		500	361	0.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	500	326	<SRL	U	500	361	0.5
1,3-Dichlorobenzene	<SRL	U	500	326	<SRL	U	500	361	0.5
1,4-Dichlorobenzene	1110		500	326	502		500	361	0.5
1,2-Dichlorobenzene	<SRL	U	500	326	<SRL	U	500	361	0.5
1,2,4-Trichlorobenzene	<SRL	U	500	326	<SRL	U	500	361	0.5
Hexachlorobutadiene	<SRL	U	500	326	<SRL	U	500	361	0.5
BFB-Surrogate Std. % Recovery	99%				104%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
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Marcus Hueppe
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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130456
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 04/17/2013
DATE REPORTED : 04/25/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	F-2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	F-3-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130456-62465				130456-62474				
Date Sampled	04/16/2013				04/16/2013				
Date Analyzed	04/24/2013				04/24/2013				
Can Dilution Factor	1.30				1.45				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	1560		500	1153	<SRL	U	500	1278	1.8
Propene	299000		50000	112188	233000		2500	6220	1.7
Dichlorodifluoromethane	2950		500	1612	2100		500	1787	2.5
Chloromethane	9800		2500	3366	8310		2500	3732	1.0
Dichlorotetrafluoroethane	<SRL	U	500	2278	<SRL	U	500	2526	3.5
Vinyl Chloride	<SRL	U	500	833	<SRL	U	500	924	1.3
Methanol	125000		2500	21355	32200		2500	23678	6.6
1,3-Butadiene	<SRL	U	500	721	<SRL	U	500	800	1.1
Bromomethane	<SRL	U	500	1266	<SRL	U	500	1403	1.9
Chloroethane	10400		2500	4299	2860		500	953	1.3
Dichlorofluoromethane	<SRL	U	500	1372	<SRL	U	500	1521	2.1
Ethanol	92300		2500	12283	4490		500	2724	3.8
Vinyl Bromide	<SRL	U	500	1426	<SRL	U	500	1581	2.2
Acetone	1390000		50000	309691	90500		2500	17169	4.8
Trichlorofluoromethane	<SRL	U	500	1831	<SRL	U	500	2030	2.8
2-Propanol (IPA)	646000		50000	320462	4980		500	3553	4.9
Acrylonitrile	<SRL	U	500	1415	<SRL	U	500	1569	2.2
1,1-Dichloroethene	<SRL	U	500	1292	<SRL	U	500	1433	2.0
Methylene Chloride (DCM)	<SRL	U	500	2264	<SRL	U	500	2511	3.5
Allyl Chloride	<SRL	U	500	1020	<SRL	U	500	1131	1.6
Carbon Disulfide	NR		500	1015	NR		500	1125	1.6
Trichlorotrifluoroethane	<SRL	U	500	2498	<SRL	U	500	2770	3.8
trans-1,2-Dichloroethene	<SRL	U	500	1292	<SRL	U	500	1433	2.0
1,1-Dichloroethane	<SRL	U	500	1319	<SRL	U	500	1463	2.0
Methyl Tert Butyl Ether (MTBE)	3120		500	1175	<SRL	U	500	1303	1.8
Vinyl Acetate	<SRL	U	500	2295	<SRL	U	500	2545	3.5
2-Butanone (MEK)	2080000		50000	192251	103000		2500	10658	2.9
cis-1,2-Dichloroethene	1430		500	1292	<SRL	U	500	1433	2.0
Hexane	5240		500	1149	13700		2500	6369	1.8
Chloroform	<SRL	U	500	1591	<SRL	U	500	1765	2.4
Ethyl Acetate	241000		50000	117454	2490		500	1302	1.8
Tetrahydrofuran	2160000		50000	96125	125000		2500	5329	1.5
1,2-Dichloroethane	<SRL	U	500	1319	<SRL	U	500	1463	2.0
1,1,1-Trichloroethane	<SRL	U	500	1778	<SRL	U	500	1972	2.7

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Laboratory Analysis Report

CLIENT : Soil Water Air Protection Enterprise
PROJECT NO : 130456
MATRIX : AIR
UNITS : ug/m3

DATE RECEIVED : 04/17/2013
DATE REPORTED : 04/25/2013

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	F-2-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	F-3-Canister			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	130456-62465				130456-62474				
Date Sampled	04/16/2013				04/16/2013				
Date Analyzed	04/24/2013				04/24/2013				
Can Dilution Factor	1.30				1.45				
	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Benzene	2900000		50000	104124	430000		2500	5772	1.6
Carbon Tetrachloride	2310		500	2051	<SRL	U	500	2274	3.1
Cyclohexane	13700		2500	5609	2960		500	1244	1.7
1,2-Dichloropropane	9640		500	1506	<SRL	U	500	1670	2.3
Bromodichloromethane	<SRL	U	500	2184	<SRL	U	500	2421	3.4
1,4-Dioxane	<SRL	U	500	1175	<SRL	U	500	1302	1.8
Trichloroethene (TCE)	1870		500	1752	<SRL	U	500	1942	2.7
2,2,4-Trimethylpentane	9600		500	1523	1700		500	1688	2.3
Heptane	24900		2500	6679	11000		500	1481	2.0
cis-1,3-Dichloropropene	<SRL	U	500	1479	<SRL	U	500	1640	2.3
4-Methyl-2-pentanone (MiBK)	228000		2500	6676	9310		500	1480	2.0
trans-1,3-Dichloropropene	<SRL	U	500	1479	<SRL	U	500	1640	2.3
1,1,2-Trichloroethane	<SRL	U	500	1778	<SRL	U	500	1972	2.7
Toluene	804000		50000	122826	74300		2500	6809	1.9
2-Hexanone (MBK)	35400		2500	6676	4640		500	1480	2.0
Dibromochloromethane	<SRL	U	500	2777	<SRL	U	500	3079	4.3
1,2-Dibromoethane	<SRL	U	500	2504	<SRL	U	500	2777	3.8
Tetrachloroethene (PCE)	6320		500	2211	<SRL	U	500	2451	3.4
Chlorobenzene	7970		500	1501	<SRL	U	500	1664	2.3
Ethylbenzene	332000		50000	141529	38200		2500	7846	2.2
m & p-Xylenes	588000		50000	283030	55900		2500	15691	4.3
Bromoform	<SRL	U	500	3369	<SRL	U	500	3736	5.2
Styrene	12800		500	1388	<SRL	U	500	1539	2.1
1,1,2,2-Tetrachloroethane	<SRL	U	500	2238	<SRL	U	500	2481	3.4
o-Xylene	150000		2500	7076	26600		2500	7845	2.2
4-Ethyltoluene	22000		2500	8012	3390		500	1777	2.5
1,3,5-Trimethylbenzene	18500		2500	8011	4700		500	1776	2.5
1,2,4-Trimethylbenzene	33000		2500	8011	9840		500	1776	2.5
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	500	1688	<SRL	U	500	1871	2.6
1,3-Dichlorobenzene	<SRL	U	500	1960	<SRL	U	500	2173	3.0
1,4-Dichlorobenzene	6700		500	1960	3020		500	2173	3.0
1,2-Dichlorobenzene	<SRL	U	500	1960	<SRL	U	500	2173	3.0
1,2,4-Trichlorobenzene	<SRL	U	500	2419	<SRL	U	500	2682	3.7
Hexachlorobutadiene	<SRL	U	500	3476	<SRL	U	500	3854	5.3
BFB-Surrogate Std. % Recovery	99%				104%				70-130%

U - Compound was analyzed for, but was not detected at or above the SRL.
J - Analyte was detected. However the analyte concentration is an estimated value, which is between the Sample Reporting Limit (SRL) and the Sample Quantitation Limit (SQL).
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NR - Not Reported on these analysis.

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Laboratoy Director

1534 Eastman Ave., Ste. A • Ventura, • CA 93003 www.aaclab.com • (805) 650-1642 • FAX (805) 650-1644

TO-15 QC REPORT

ANALYSIS DATE : 04/24/2013
ANALYST : JJG
INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS040413-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 04/18/2013 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC**
4-BFB (surrogate standard)	10.00	10.28	103
Chlorodifluoromethane	10.10	10.39	103
Propene	11.00	10.94	99
Dichlorodifluoromethane	9.80	10.69	109
Chloromethane	10.10	9.70	96
Dichlorotetrafluoroethane	10.10	10.31	102
Vinyl Chloride	10.20	10.14	99
Methanol	4.90	4.99	102
1,3-Butadiene	10.50	9.87	94
Bromomethane	10.20	8.68	85
Chloroethane	10.00	8.87	89
Dichlorofluoromethane	10.00	10.41	104
Ethanol	9.80	9.66	99
Vinyl Bromide	10.20	10.68	105
Acetone	10.80	9.12	84
Trichlorofluoromethane	10.10	11.18	111
2-Propanol (IPA)	11.00	9.87	90
Acrylonitrile	10.50	10.49	100
1,1-Dichloroethene	10.50	10.58	101
Methylene Chloride (DCM)	10.40	10.02	96
Allyl Chloride	11.00	11.03	100
Carbon Disulfide	10.50	9.36	89
Trichlorotrifluoroethane	10.40	10.71	103
trans-1,2-Dichloroethene	10.40	10.47	101
1,1-Dichloroethane	10.40	10.29	99
Methyl Tert Butyl Ether (MTBE)	10.60	10.96	103
Vinyl Acetate	9.70	10.24	106
2-Butanone (MEK)	10.60	10.94	103
cis-1,2-Dichloroethene	10.60	10.65	100
Hexane	10.70	10.78	101
Chloroform	10.60	11.13	105
Ethyl Acetate	11.00	11.45	104
Tetrahydrofuran	10.80	10.57	98
1,2-Dichloroethane	10.40	10.91	105
1,1,1-Trichloroethane	10.50	11.47	109

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ANALYSIS DATE : 04/24/2013
ANALYST : JJG
INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS040413-01

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 04/18/2013 Calibration

Compounds	*Conc*	*Daily Conc*	*%REC**
Benzene	10.50	9.74	93
Carbon Tetrachloride	10.10	10.77	107
Cyclohexane	10.50	10.19	97
1,2-Dichloropropane	10.50	9.97	95
Bromodichloromethane	10.30	10.76	104
1,4-Dioxane	10.30	9.63	93
Trichloroethene (TCE)	10.30	10.27	100
2,2,4-Trimethylpentane	10.90	10.50	96
Heptane	10.70	10.42	97
cis-1,3-Dichloropropene	11.00	11.12	101
4-Methyl-2-pentanone (MiBK)	10.30	10.14	98
trans-1,3-Dichloropropene	9.80	10.02	102
1,1,2-Trichloroethane	10.60	10.24	97
Toluene	10.60	10.36	98
2-Hexanone (MBK)	10.80	10.63	98
Dibromochloromethane	11.00	11.54	105
1,2-Dibromoethane	10.40	10.20	98
Tetrachloroethene (PCE)	10.40	10.15	98
Chlorobenzene	10.60	10.17	96
Ethylbenzene	10.50	10.28	98
m & p-Xylenes	20.60	19.39	94
Bromoform	10.30	10.36	101
Styrene	10.40	10.36	100
1,1,2,2-Tetrachloroethane	10.60	10.23	97
o-Xylene	10.60	10.34	98
4-Ethyltoluene	10.40	10.13	97
1,3,5-Trimethylbenzene	10.20	9.85	97
1,2,4-Trimethylbenzene	10.20	10.09	99
Benzyl Chloride (a-Chlorotoluene)	10.00	10.75	108
1,3-Dichlorobenzene	10.00	10.16	102
1,4-Dichlorobenzene	10.00	9.65	97
1,2-Dichlorobenzene	10.00	9.94	99
1,2,4-Trichlorobenzene	9.30	9.02	97
Hexachlorobutadiene	9.80	9.97	102

* - %REC should be 70-130%

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

CLIENT ID	**: Laboratory Control Spike**	**DATE ANALYZED**	**: 04/24/2013**
AAC ID	**: LCS/LCSD**	**DATE REPORTED**	**: 04/24/2013**
MEDIA	**: Air**	**UNITS**	**: ppbv**

TO-15 Laboratory Control Spike Recovery

Compound	Sample Conc.	Spike Added	Spike Res	Dup Spike Res	Spike % Rec *	Spike Dup % Rec *	RPD** %
1,1-Dichloroethene	0.0	10.50	10.58	10.43	101	99	1.4
Methylene Chloride (DCM)	0.0	10.40	10.02	9.85	96	95	1.7
Benzene	0.0	10.50	9.74	9.56	93	91	1.9
Trichloroethene (TCE)	0.0	10.30	10.27	10.25	100	100	0.2
Toluene	0.0	10.60	10.36	10.26	98	97	1.0
Tetrachloroethene (PCE)	0.0	10.40	10.15	10.25	98	99	1.0
Chlorobenzene	0.0	10.60	10.17	10.12	96	95	0.5
Ethylbenzene	0.0	10.50	10.28	10.11	98	96	1.7
m & p-Xylenes	0.0	20.60	19.39	19.37	94	94	0.1
o-Xylene	0.0	10.60	10.34	10.07	98	95	2.6

* Must be 70-130%

** Must be < 25%

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Method Blank Analysis Report

MATRIX	**: AIR**	**ANALYSIS DATE**	**: 04/24/2013**
UNITS	**: ppbv**	**REPORT DATE**	**: 04/24/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 042413	RL
Chlorodifluoromethane	<RL	0.5
Propene	<RL	1.0
Dichlorodifluoromethane	<RL	0.5
Chloromethane	<RL	0.5
Dichlorotetrafluoroethane	<RL	0.5
Vinyl Chloride	<RL	0.5
Methanol	<RL	5.0
1,3-Butadiene	<RL	0.5
Bromomethane	<RL	0.5
Chloroethane	<RL	0.5
Dichlorofluoromethane	<RL	0.5
Ethanol	<RL	2.0
Vinyl Bromide	<RL	0.5
Acetone	<RL	2.0
Trichlorofluoromethane	<RL	0.5
2-Propanol (IPA)	<RL	2.0
Acrylonitrile	<RL	1.0
1,1-Dichloroethene	<RL	0.5
Methylene Chloride (DCM)	<RL	1.0
Allyl Chloride	<RL	0.5
Carbon Disulfide	<RL	0.5
Trichlorotrifluoroethane	<RL	0.5
trans-1,2-Dichloroethene	<RL	0.5
1,1-Dichloroethane	<RL	0.5
Methyl Tert Butyl Ether (MTBE)	<RL	0.5
Vinyl Acetate	<RL	1.0
2-Butanone (MEK)	<RL	1.0
cis-1,2-Dichloroethene	<RL	0.5
Hexane	<RL	0.5
Chloroform	<RL	0.5
Ethyl Acetate	<RL	0.5
Tetrahydrofuran	<RL	0.5
1,2-Dichloroethane	<RL	0.5
1,1,1-Trichloroethane	<RL	0.5
Benzene	<RL	0.5
Carbon Tetrachloride	<RL	0.5
Cyclohexane	<RL	0.5
1,2-Dichloropropane	<RL	0.5
Bromodichloromethane	<RL	0.5
1,4-Dioxane	<RL	0.5
Trichloroethene (TCE)	<RL	0.5
2,2,4-Trimethylpentane	<RL	0.5
Heptane	<RL	0.5

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Method Blank Analysis Report

MATRIX	**: AIR**	**ANALYSIS DATE**	**: 04/24/2013**
UNITS	**: ppbv**	**REPORT DATE**	**: 04/24/2013**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID / *AAC ID*	Method Blank MB 042413	RL
cis-1,3-Dichloropropene	<RL	0.5
4-Methyl-2-pentanone (MiBK)	<RL	0.5
trans-1,3-Dichloropropene	<RL	0.5
1,1,2-Trichloroethane	<RL	0.5
Toluene	<RL	0.5
2-Hexanone (MBK)	<RL	0.5
Dibromochloromethane	<RL	0.5
1,2-Dibromoethane	<RL	0.5
Tetrachloroethene (PCE)	<RL	0.5
Chlorobenzene	<RL	0.5
Ethylbenzene	<RL	0.5
m & p-Xylenes	<RL	1.0
Bromoform	<RL	0.5
Styrene	<RL	0.5
1,1,2,2-Tetrachloroethane	<RL	0.5
o-Xylene	<RL	0.5
4-Ethyltoluene	<RL	0.5
1,3,5-Trimethylbenzene	<RL	0.5
1,2,4-Trimethylbenzene	<RL	0.5
Benzyl Chloride (a-Chlorotoluene)	<RL	0.5
1,3-Dichlorobenzene	<RL	0.5
1,4-Dichlorobenzene	<RL	0.5
1,2-Dichlorobenzene	<RL	0.5
1,2,4-Trichlorobenzene	<RL	0.5
Hexachlorobutadiene	<RL	0.5
System Monitoring Compounds		
BFB-Surrogate Std. % Recovery	102%	--

RL - Reporting Limit

Marcus Hueppe
Laboratory Director

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Quality Control/Quality Assurance Report

AAC ID	**: 130456-62456**	**DATE ANALYZED**	**: 04/24/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 04/24/2013**
		UNITS	**: ppbv**

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Chlorodifluoromethane	<SRL	<SRL	0.0
Propene	201000	192000	4.6
Dichlorodifluoromethane	<SRL	<SRL	0.0
Chloromethane	<SRL	<SRL	0.0
Dichlorotetrafluoroethane	<SRL	<SRL	0.0
Vinyl Chloride	<SRL	<SRL	0.0
Methanol	2060000	2060000	0.0
1,3-Butadiene	<SRL	<SRL	0.0
Bromomethane	<SRL	<SRL	0.0
Chloroethane	<SRL	<SRL	0.0
Dichlorofluoromethane	<SRL	<SRL	0.0
Ethanol	168000	170000	1.2
Vinyl Bromide	<SRL	<SRL	0.0
Acetone	259000	260000	0.4
Trichlorofluoromethane	<SRL	<SRL	0.0
2-Propanol (IPA)	<SRL	<SRL	0.0
Acrylonitrile	<SRL	<SRL	0.0
1,1-Dichloroethene	<SRL	<SRL	0.0
Methylene Chloride (DCM)	<SRL	<SRL	0.0
Allyl Chloride	<SRL	<SRL	0.0
Carbon Disulfide	<SRL	<SRL	0.0
Trichlorotrifluoroethane	<SRL	<SRL	0.0
trans-1,2-Dichloroethene	<SRL	<SRL	0.0
1,1-Dichloroethane	<SRL	<SRL	0.0
Methyl Tert Butyl Ether (MTBE)	<SRL	<SRL	0.0
Vinyl Acetate	<SRL	<SRL	0.0
2-Butanone (MEK)	190000	182000	4.3
cis-1,2-Dichloroethene	<SRL	<SRL	0.0
Hexane	<SRL	<SRL	0.0
Chloroform	<SRL	<SRL	0.0
Ethyl Acetate	<SRL	<SRL	0.0
Tetrahydrofuran	106000	103000	2.9
1,2-Dichloroethane	<SRL	<SRL	0.0
1,1,1-Trichloroethane	<SRL	<SRL	0.0
Benzene	246000	244000	0.8
Carbon Tetrachloride	<SRL	<SRL	0.0

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Quality Control/Quality Assurance Report

AAC ID	**: 130456-62456**	**DATE ANALYZED**	**: 04/24/2013**
MATRIX	**: Air**	**DATE REPORTED**	**: 04/24/2013**
		UNITS	**: ppbv**

TO-15 Duplicate Analysis

Compound	Sample Conc	Duplicate Conc	% RPD
Cyclohexane	<SRL	<SRL	0.0
1,2-Dichloropropane	<SRL	<SRL	0.0
Bromodichloromethane	<SRL	<SRL	0.0
1,4-Dioxane	<SRL	<SRL	0.0
Trichloroethene (TCE)	<SRL	<SRL	0.0
2,2,4-Trimethylpentane	<SRL	<SRL	0.0
Heptane	<SRL	<SRL	0.0
cis-1,3-Dichloropropene	<SRL	<SRL	0.0
4-Methyl-2-pentanone (MiBK)	<SRL	<SRL	0.0
trans-1,3-Dichloropropene	<SRL	<SRL	0.0
1,1,2-Trichloroethane	<SRL	<SRL	0.0
Toluene	<SRL	<SRL	0.0
2-Hexanone (MBK)	<SRL	<SRL	0.0
Dibromochloromethane	<SRL	<SRL	0.0
1,2-Dibromoethane	<SRL	<SRL	0.0
Tetrachloroethene (PCE)	<SRL	<SRL	0.0
Chlorobenzene	<SRL	<SRL	0.0
Ethylbenzene	<SRL	<SRL	0.0
m & p-Xylenes	<SRL	<SRL	0.0
Bromoform	<SRL	<SRL	0.0
Styrene	<SRL	<SRL	0.0
1,1,2,2-Tetrachloroethane	<SRL	<SRL	0.0
o-Xylene	<SRL	<SRL	0.0
4-Ethyltoluene	<SRL	<SRL	0.0
1,3,5-Trimethylbenzene	<SRL	<SRL	0.0
1,2,4-Trimethylbenzene	<SRL	<SRL	0.0
Benzyl Chloride (a-Chlorotoluene)	<SRL	<SRL	0.0
1,3-Dichlorobenzene	<SRL	<SRL	0.0
1,4-Dichlorobenzene	<SRL	<SRL	0.0
1,2-Dichlorobenzene	<SRL	<SRL	0.0
1,2,4-Trichlorobenzene	<SRL	<SRL	0.0
Hexachlorobutadiene	<SRL	<SRL	0.0
System Monitoring Compounds			
BFB-Surrogate Std. % Recovery	106%	104%	2.4

SRL - Sample Reporting Limit

Marcus Hueppe
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TO-15 RAW DATA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241306.D
Acq On : 24 Apr 2013 12:25
Operator : JJG
Sample : 130456-62447 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 24 13:23:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	174818	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	968368	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	913529	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	559334	10.38 ppbv	0.00
Spiked Amount 10.000			Recovery = 103.80%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	6830	0.19 ppbv #	95
3) Propene	4.781	42	41777	4.17 ppbv	95
4) Dichlorodifluoromethane	4.908	85	19006	0.34 ppbv	99
5) Chloromethane	5.288	52	2636	0.42 ppbv #	57
6) Dichlorotetrafluoroethane	5.342	135	369	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.831	31	246125m	Below Cal	
9) 1,3-Butadiene	5.867	54	118	N.D.	
10) Bromomethane	0.000		0	N.D. d	
11) Chloroethane	0.000		0	N.D. d	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.061	45	90074m	10.35 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.948	58	243092m	22.31 ppbv	
16) Trichlorofluoromethane	7.658	103	5382	0.17 ppbv	91
17) 2-Propanol(IPA)	8.147	45	1388217m	37.38 ppbv	
18) Acrylonitrile	9.034	52	251	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.323	84	14330	0.73 ppbv	96
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	9.486	76	39803m	0.59 ppbv	
23) Trichlorotrifluoroethane	8.998	103	1686	0.06 ppbv	93
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	10.424	73	559	N.D.	
27) VinylAcetate	0.000		0	N.D. d	
28) 2-Butanone(MEK)	11.423	72	31187m	2.91 ppbv	
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.458	86	2482	0.51 ppbv #	52
31) Chloroform	12.510	83	1022	N.D.	
32) EthylAcetate	12.047	43	39935	0.76 ppbv	98

04/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241306.D
Acq On : 24 Apr 2013 12:25
Operator : JJG
Sample : 130456-62447 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 24 13:23:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

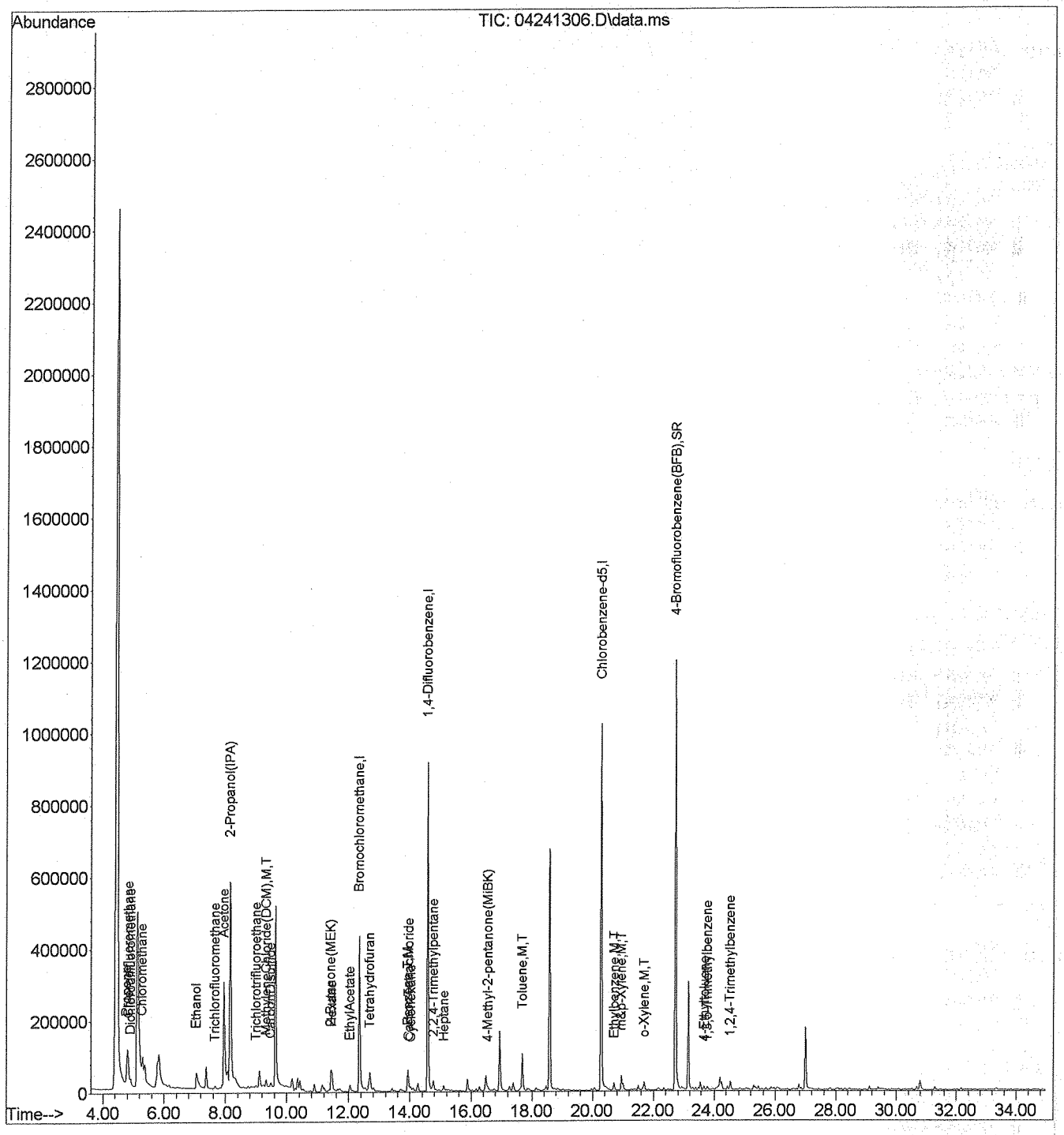
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.689	72	13531	1.22 ppbv #	60
34) 1,2-Dichloroethane	13.616	62	564	N.D.	
35) 1,1,1-Trichloroethane	13.331	97	279	N.D.	
37) Benzene	13.937	78	54835(m)	0.71 ppbv	
38) CarbonTetrachloride	13.973	117	2744	0.05 ppbv	96
39) Cyclohexane	14.026	69	1025	0.09 ppbv #	1
40) 1,2-Dichloropropane	15.292	63	397	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.292	130	704	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	33330	0.24 ppbv	98
45) Heptane	15.114	71	4314	0.18 ppbv #	78
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.558	58	2386	0.08 ppbv #	95
48) trans-1,3-Dichloropropene	0.000		0	N.D. d	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.682	91	101724(m)	1.09 ppbv	
51) 2-Hexanone(MBK)	18.199	58	1380	N.D.	
52) Dibromochloromethane	19.019	129	750	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	995	N.D.	
56) Chlorobenzene	20.303	114	230	N.D.	
57) Ethylbenzene	20.713	91	21291	0.17 ppbv	99
58) m&p-Xylene	20.945	106	26119	0.54 ppbv #	91
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	1850	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.354	83	242	N.D.	
62) o-Xylene	21.694	91	17652	0.19 ppbv	97
64) 4-Ethyltoluene	23.691	120	3198	0.08 ppbv #	85
65) 1,3,5-Trimethylbenzene	23.780	120	3388	0.06 ppbv #	89
66) 1,2,4-Trimethylbenzene	24.529	120	10300	0.18 ppbv	93
67) BenzylChloride(a-Chlor...	25.189	91	566	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	607	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	1304	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	815	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	2066	N.D.	
72) Hexachlorobutadiene	30.075	225	861	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241306.D
Acq On : 24 Apr 2013 12:25
Operator : JJG
Sample : 130456-62447 x1
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 24 13:23:16 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241307.D
Acq On : 24 Apr 2013 13:11
Operator : JJG
Sample : 130456-62447 x2
Misc : IS/Surr: PS082712-02 + 250mL
ALS Vial : 2 Sample Multiplier: 2

Quant Time: Apr 24 13:46:32 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	169532	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	948086	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	904631	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	543418	10.18 ppbv	0.00
Spiked Amount 10.000			Recovery = 101.80%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	3825	N.D.	
3) Propene	0.000		0	N.D. d	
4) Dichlorodifluoromethane	4.908	85	9371	N.D.	
5) Chloromethane	5.306	52	1275	N.D.	
6) Dichlorotetrafluoroethane	5.324	135	123	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.831	31	131001m	53.95 ppbv	
9) 1,3-Butadiene	0.000		0	N.D.	
10) Bromomethane	6.428	96	1454	N.D.	
11) Chloroethane	6.790	66	375	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.061	45	45461m	10.77 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.948	58	119954m	22.71 ppbv	
16) Trichlorofluoromethane	7.658	103	2874	N.D.	
17) 2-Propanol(IPA)	8.147	45	762072m	42.31 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.323	84	8535	N.D.	
21) AllylChloride	9.233	39	1480	N.D.	
22) CarbonDisulfide	9.486	76	14078	N.D.	
23) Trichlorotrifluoroethane	8.998	103	951	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	0.000		0	N.D.	
27) VinylAcetate	10.888	43	3638	N.D.	
28) 2-Butanone(MEK)	11.440	72	14819m	2.85 ppbv	
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.458	86	1271	N.D.	
31) Chloroform	12.510	83	346	N.D.	
32) EthylAcetate	12.047	43	18647	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241307.D
Acq On : 24 Apr 2013 13:11
Operator : JJG
Sample : 130456-62447 x2
Misc : IS/Surr: PS082712-02 + 250mL
ALS Vial : 2 Sample Multiplier: 2

Quant Time: Apr 24 13:46:32 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

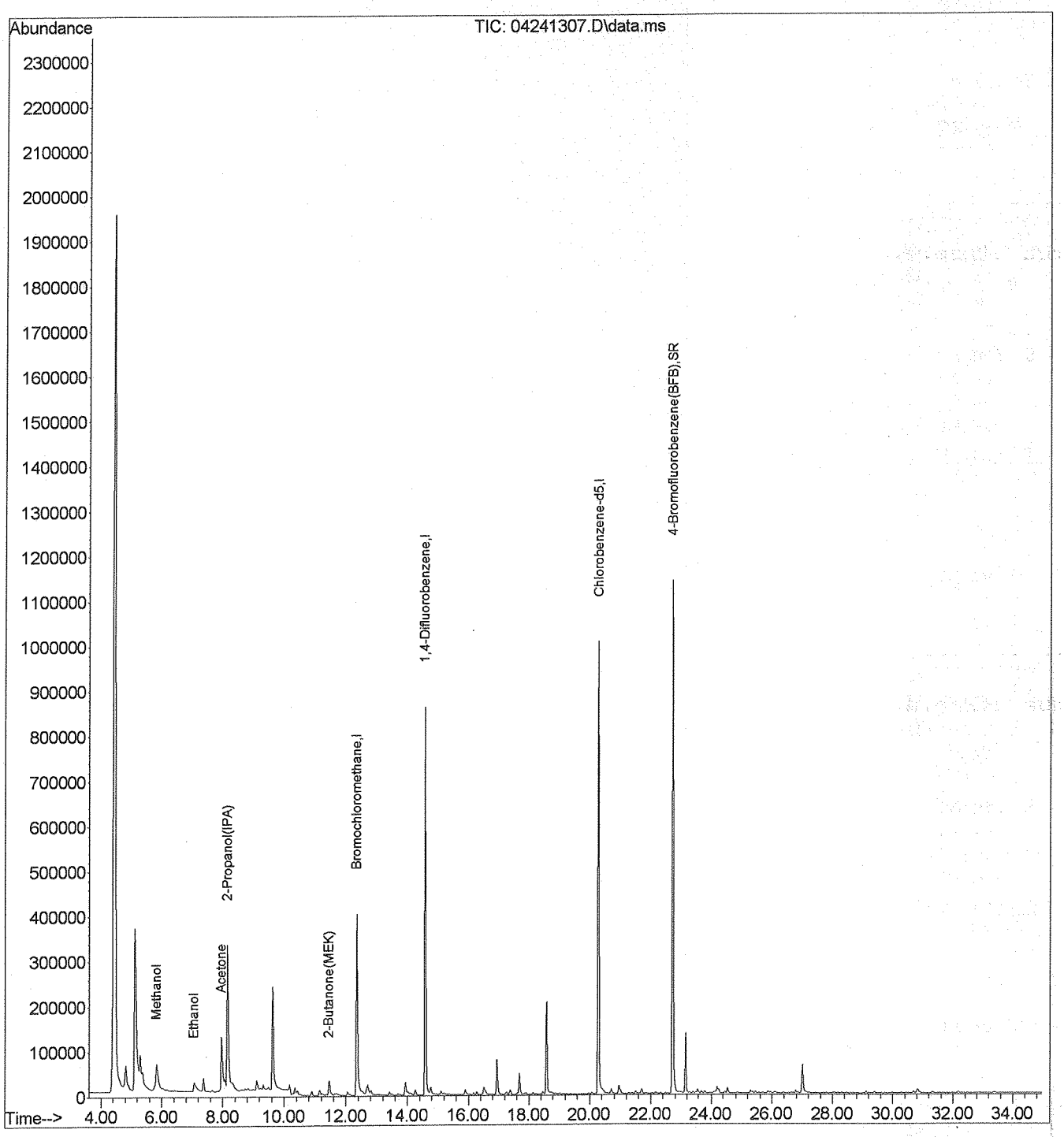
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.707	72	6258	1.16 ppbv #	65
34) 1,2-Dichloroethane	13.616	62	242	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	30044	N.D.	
38) CarbonTetrachloride	13.973	117	1293	N.D.	
39) Cyclohexane	14.026	69	531	N.D.	
40) 1,2-Dichloropropane	15.310	63	116	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.292	130	333	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	18691	N.D.	
45) Heptane	15.114	71	2116	N.D.	
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.558	58	874	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	765	N.D.	
49) 1,1,2-Trichloroethane	17.860	97	2983	N.D.	
50) Toluene	17.682	91	49566m	1.09 ppbv	
51) 2-Hexanone(MBK)	18.288	58	231	N.D.	
52) Dibromochloromethane	19.019	129	326	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	599	N.D.	
56) Chlorobenzene	20.356	114	108	N.D.	
57) Ethylbenzene	20.713	91	10710	N.D.	
58) m&p-Xylene	20.963	106	12761	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.676	104	766	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	8399	N.D.	
64) 4-Ethyltoluene	23.691	120	1419	N.D.	
65) 1,3,5-Trimethylbenzene	23.798	120	1754	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	5077	N.D.	
67) BenzylChloride(a-Chlor...	25.296	91	1415	N.D.	
68) 1,3-Dichlorobenzene	25.082	146	149	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	628	N.D.	
70) 1,2-Dichlorobenzene	25.866	146	152	N.D.	
71) 1,2,4-Trichlorobenzene	29.468	180	661	N.D.	
72) Hexachlorobutadiene	30.075	225	179	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241307.D
Acq On : 24 Apr 2013 13:11
Operator : JJG
Sample : 130456-62447 x2
Misc : IS/Surr: PS082712-02 + 250mL
ALS Vial : 2 Sample Multiplier: 2

Quant Time: Apr 24 13:46:32 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241308.D
Acq On : 24 Apr 2013 13:56
Operator : JJG
Sample : 130456-62456 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 3 Sample Multiplier: 500

Quant Time: Apr 24 14:32:30 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.386	128	178981	10.00	ppbv	0.04
36) 1,4-Difluorobenzene	14.597	114	815696	10.00	ppbv	0.02
55) Chlorobenzene-d5	20.285	117	847871	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.728	174	562663	11.25	ppbv	0.02
Spiked Amount 10.000			Recovery = 112.50%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.854	51	4119	N.D.		
3) Propene	4.799	42	1627821	79,359.18	ppbv	9
4) Dichlorodifluoromethane	4.944	85	5944	N.D.		
5) Chloromethane	5.324	52	35287m	2725.81	ppbv	
6) Dichlorotetrafluoroethane	5.360	135	139	N.D.		
7) VinylChloride	5.686	62	3100	N.D.		
8) Methanol	5.813	31	6160930m	Below Cal		
9) 1,3-Butadiene	0.000		0	N.D.	d	
10) Bromomethane	6.464	96	3789	N.D.		
11) Chloroethane	6.754	66	3677	493.53	ppbv	98
12) Dichlorofluoromethane	7.007	67	1365	N.D.		
13) Ethanol	7.079	45	1472542m	82,627.66	ppbv	
14) VinylBromide	0.000		0	N.D.		
15) Acetone	7.984	58	2427908m	108,827.35	ppbv	
16) Trichlorofluoromethane	0.000		0	N.D.		
17) 2-Propanol(IPA)	8.219	45	1767357m	23,238.19	ppbv	
18) Acrylonitrile	9.142	52	255	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	9.378	84	3009	N.D.		
21) AllylChloride	9.251	39	1623	N.D.		
22) CarbonDisulfide	9.522	76	41582m	299.19	ppbv	
23) Trichlorotrifluoroethane	0.000		0	N.D.		
24) trans-1,2-Dichloroethene	0.000		0	N.D.		
25) 1,1-Dichloroethane	10.923	63	233	N.D.		
26) MethylTertButylEther(M...	10.478	73	25953	N.D.		
27) VinylAcetate	10.905	43	11606	N.D.		
28) 2-Butanone(MEK)	11.440	72	1739940m	79,273.52	ppbv	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241308.D
Acq On : 24 Apr 2013 13:56
Operator : JJG
Sample : 130456-62456 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 3 Sample Multiplier: 500

Quant Time: Apr 24 14:32:30 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
29) cis-1,2-Dichloroethene	11.922	96	1765	N.D.	
30) Hexane	11.476	86	12383	1234.18 ppbv #	1
31) Chloroform	12.653	83	377	N.D.	
32) EthylAcetate	12.029	43	624498	5806.40 ppbv	99
33) Tetrahydrofuran	12.671	72	818595	35930.18 ppbv #	6
6					
34) 1,2-Dichloroethane	13.616	62	1260	N.D.	
35) 1,1,1-Trichloroethane	13.402	97	1402	N.D.	
37) Benzene	13.973	78	9280366	71797.38 ppbv	9
7					
38) CarbonTetrachloride	14.133	117	3094	N.D.	
39) Cyclohexane	14.044	69	15081	791.19 ppbv #	22
40) 1,2-Dichloropropane	0.000		0	N.D. d	
41) Bromodichloromethane	15.881	85	3187	N.D.	
42) 1,4-Dioxane	15.542	88	51296	1621.73 ppbv	95
43) Trichloroethene(TCE)	15.310	130	972	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	178417	776.64 ppbv #	93
45) Heptane	15.114	71	81529	1973.13 ppbv	89
46) cis-1,3-Dichloropropene	16.719	75	828	N.D.	
47) 4-Methyl-2-pentanone(M...	16.523	58	175060	3620.32 ppbv	95
48) trans-1,3-Dichloropropene	0.000		0	N.D. d	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.682	91	2658792	16975.67 ppbv	6
51) 2-Hexanone(MBK)	18.127	58	137372	2304.74 ppbv	91
52) Dibromochloromethane	19.019	129	551	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	775	N.D.	
56) Chlorobenzene	20.356	114	24699	541.71 ppbv	96
57) Ethylbenzene	20.713	91	1387593	6135.09 ppbv	99
58) m&p-Xylene	20.945	106	1015985	11267.89 ppbv	9
5					
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.640	104	33698	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.318	83	2348	N.D.	
62) o-Xylene	21.694	91	673340	3842.59 ppbv	99
64) 4-Ethyltoluene	23.673	120	52673	706.40 ppbv	94
65) 1,3,5-Trimethylbenzene	23.780	120	92431	868.13 ppbv	96
66) 1,2,4-Trimethylbenzene	24.529	120	259463	2477.85 ppbv	99
67) BenzylChloride(a-Chlor...	25.117	91	26598	N.D.	
68) 1,3-Dichlorobenzene	25.046	146	1582	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241308.D
Acq On : 24 Apr 2013 13:56
Operator : JJG
Sample : 130456-62456 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 3 Sample Multiplier: 500

Quant Time: Apr 24 14:32:30 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

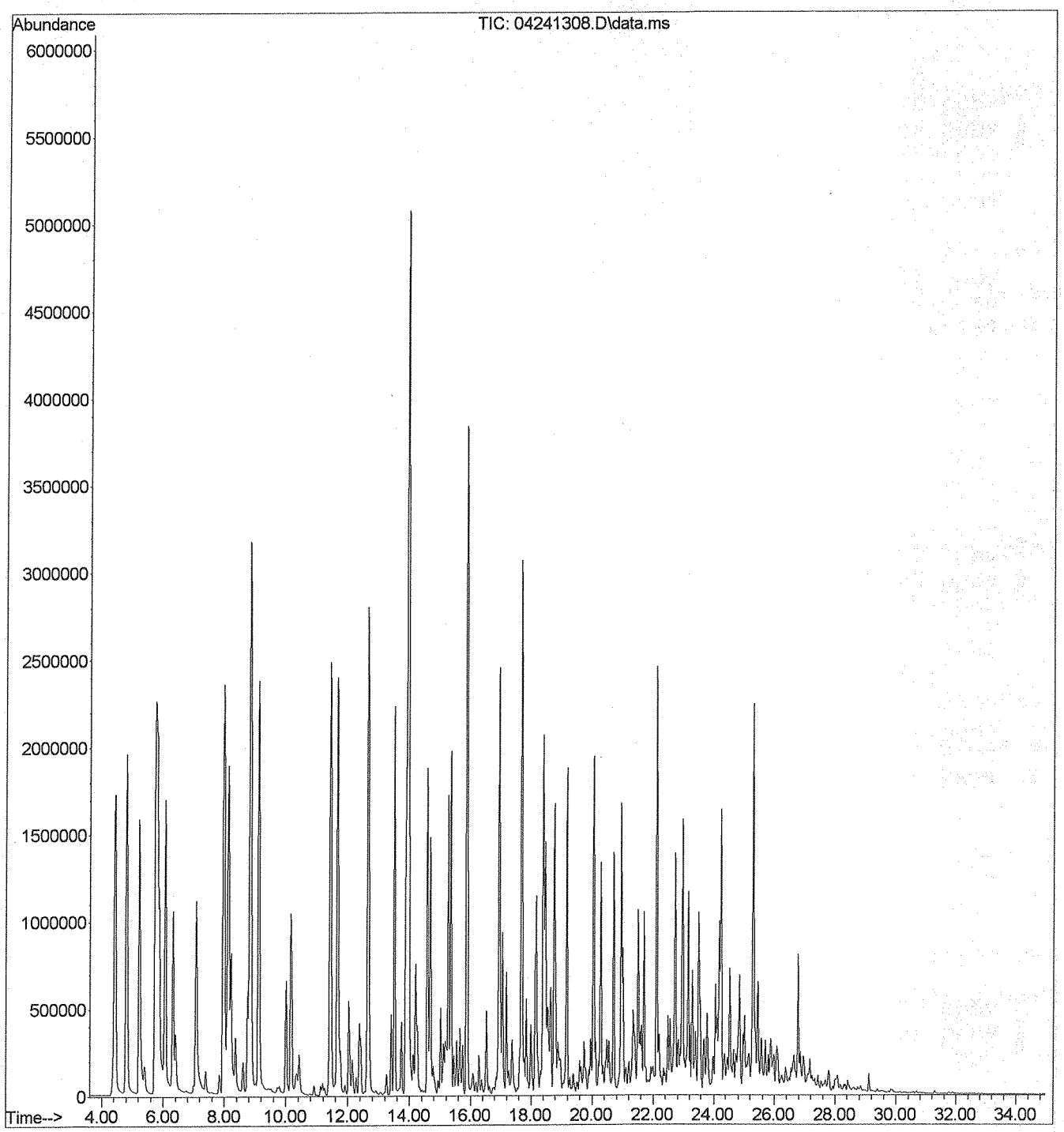
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
69) 1,4-Dichlorobenzene	25.278	146	151154	929.66 ppbv #	88
70) 1,2-Dichlorobenzene	25.849	146	3902	N.D.	
71) 1,2,4-Trichlorobenzene	29.451	180	1822	N.D.	
72) Hexachlorobutadiene	30.075	225	1258	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241308.D
Acq On : 24 Apr 2013 13:56
Operator : JJG
Sample : 130456-62456 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 3 Sample Multiplier: 500

Quant Time: Apr 24 14:32:30 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241309.D
Acq On : 24 Apr 2013 14:41
Operator : JJG
Sample : 130456-62456 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 3 Sample Multiplier: 2500

Quant Time: Apr 24 18:38:27 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.368	128	199036	10.00 ppbv	0.02
36) 1,4-Difluorobenzene	14.579	114	1000528	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	949678	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	604807	10.79 ppbv	0.00
Spiked Amount 10.000			Recovery = 107.90%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.835	51	1229	N.D.	
3) Propene	4.799	42	511788m	112182.71 ppbv	
4) Dichlorodifluoromethane	4.926	85	1402	N.D.	
5) Chloromethane	5.306	52	9326	3239.08 ppbv	92
6) Dichlorotetrafluoroethane	0.000		0	N.D.	
7) VinylChloride	5.668	62	773	N.D.	
8) Methanol	5.740	31	2387639m	~~Below Cal~~	
9) 1,3-Butadiene	5.867	54	13354	N.D.	
10) Bromomethane	6.446	96	1975	N.D.	
11) Chloroethane	6.736	66	1164	N.D.	
12) Dichlorofluoromethane	7.043	67	119	N.D.	
13) Ethanol	7.043	45	392329m	98981.37 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.948	58	802021m	161635.55 ppbv	
16) Trichlorofluoromethane	0.000		0	N.D.	
17) 2-Propanol(IPA)	8.183	45	584285m	34542.05 ppbv	
18) Acrylonitrile	9.016	52	443	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.341	84	2521	N.D.	
21) AllylChloride	9.251	39	293	N.D.	
22) CarbonDisulfide	9.504	76	23358	N.D.	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	10.460	73	5979	N.D.	
27) VinylAcetate	11.012	43	195	N.D.	
28) 2-Butanone(MEK)	11.423	72	537726m	110153.99 ppbv	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241309.D
Acq On : 24 Apr 2013 14:41
Operator : JJG
Sample : 130456-62456 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 3 Sample Multiplier: 2500

Quant Time: Apr 24 18:38:27 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
29) cis-1,2-Dichloroethene	11.904	96	458	N.D.	
30) Hexane	11.476	86	3326	N.D.	
31) Chloroform	12.386	83	602	N.D.	
32) EthylAcetate	12.029	43	1519960	6354.09 ppbv	
33) Tetrahydrofuran	12.653	72	2624670	51797.68 ppbv	
34) 1,2-Dichloroethane	13.616	62	122	N.D.	
35) 1,1,1-Trichloroethane	13.402	97	296	N.D.	
37) Benzene	13.937	78	36912910	116410.15 ppbv	
38) CarbonTetrachloride	14.115	117	677	N.D.	
39) Cyclohexane	14.026	69	4005	N.D.	
40) 1,2-Dichloropropane	15.346	63	6864	N.D.	
41) Bromodichloromethane	15.863	85	975	N.D.	
42) 1,4-Dioxane	15.560	88	12265	N.D.	
43) Trichloroethene(TCE)	15.292	130	242	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	44484	N.D.	
45) Heptane	15.114	71	20789	N.D.	
46) cis-1,3-Dichloropropene	16.719	75	346	N.D.	
47) 4-Methyl-2-pentanone(M...	16.523	58	43906	3701.29 ppbv	99
48) trans-1,3-Dichloropropene	17.682	75	10196	N.D.	
49) 1,1,2-Trichloroethane	18.003	97	1419	N.D.	
50) Toluene	17.682	91	783558	20393.08 ppbv	9
9					
51) 2-Hexanone(MBK)	18.127	58	33807	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	20.356	114	5653	N.D.	
57) Ethylbenzene	20.695	91	337161	6654.56 ppbv	99
58) m&p-Xylene	20.945	106	252900	12520.67 ppbv	9
6					
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.694	104	7895	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.318	83	401	N.D.	
62) o-Xylene	21.694	91	158896	4047.86 ppbv	99
64) 4-Ethyltoluene	23.673	120	12086	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	22101	N.D.	
66) 1,2,4-Trimethylbenzene	24.529	120	60294	2570.38 ppbv	99
67) BenzylChloride(a-Chlor...	25.100	91	6482	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	400	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241309.D
Acq On : 24 Apr 2013 14:41
Operator : JJG
Sample : 130456-62456 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 3 Sample Multiplier: 2500

Quant Time: Apr 24 18:38:27 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) 1,4-Dichlorobenzene	25.278	146	34757	N.D.		
70) 1,2-Dichlorobenzene	25.849	146	867	N.D.		
71) 1,2,4-Trichlorobenzene	29.451	180	643	N.D.		
72) Hexachlorobutadiene	30.075	225	107	N.D.		

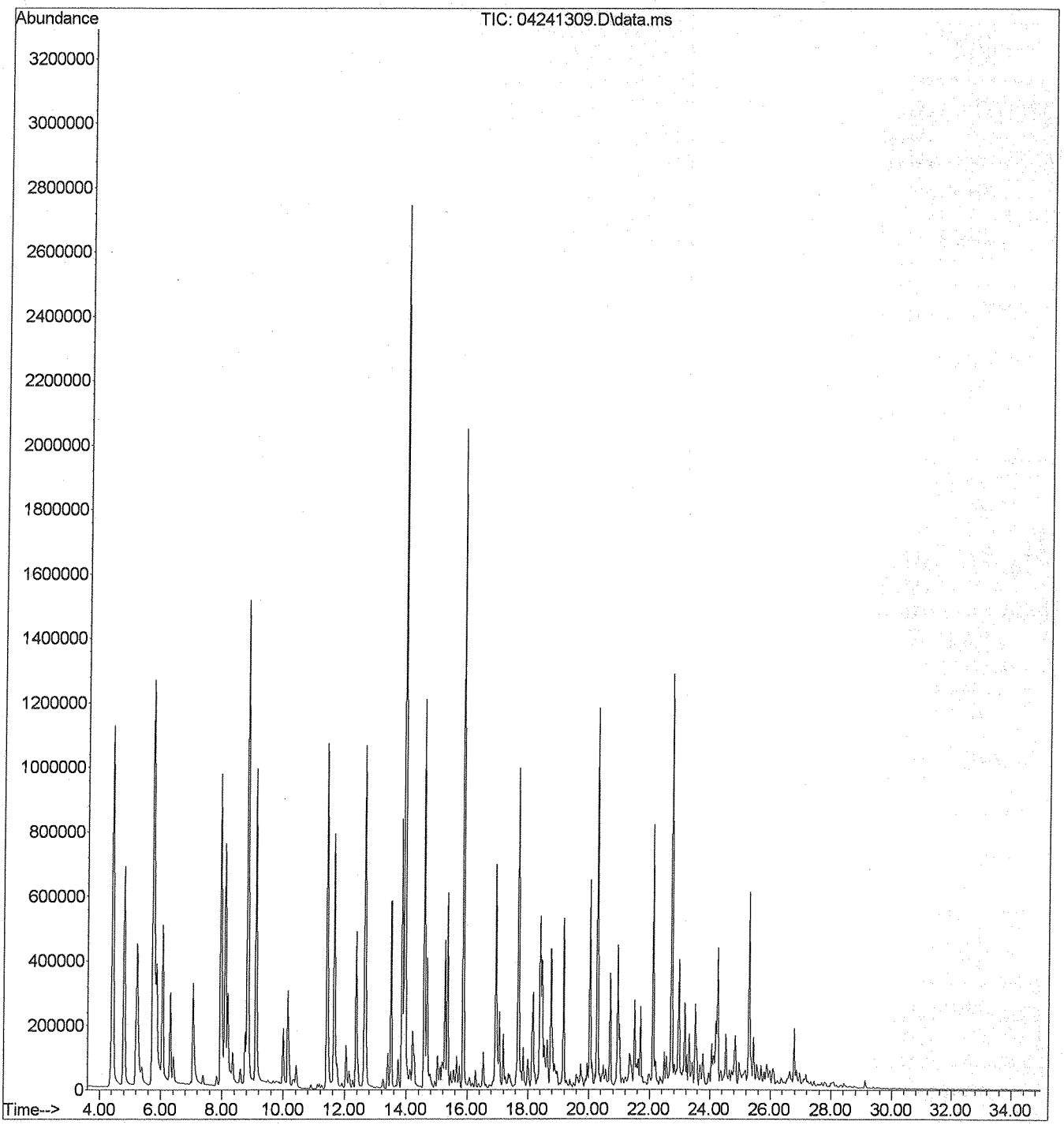
(#) = qualifier out of range (m) = manual integration (+) = signals summed

04/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241309.D
Acq On : 24 Apr 2013 14:41
Operator : JJG
Sample : 130456-62456 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 3 Sample Multiplier: 2500

Quant Time: Apr 24 18:38:27 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



10/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241314.D
Acq On : 24 Apr 2013 18:29
Operator : JJG
Sample : 130456-62456 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 19:39:12 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	194083	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	1038210	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	959731	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	600808	10.61 ppbv	0.00
Spiked Amount 10.000			Recovery = 106.10%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.	
3) Propene	4.799	42	298250	134088.16 ppbv	
4) Dichlorodifluoromethane	0.000		0	N.D.	
5) Chloromethane	5.306	52	676	N.D.	
6) Dichlorotetrafluoroethane	0.000		0	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.831	31	152038m	1377033.29 ppbv	
9) 1,3-Butadiene	5.867	54	691	N.D.	
10) Bromomethane	6.428	96	911	N.D.	
11) Chloroethane	6.808	66	369	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.097	45	216976	112273.40 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	41931	173324.71 ppbv	
16) Trichlorofluoromethane	0.000		0	N.D.	
17) 2-Propanol(IPA)	8.201	45	24741	N.D.	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.323	84	2628	N.D.	
21) AllylChloride	9.251	39	415	N.D.	
22) CarbonDisulfide	9.486	76	11799	N.D.	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	10.477	73	143	N.D.	
27) VinylAcetate	10.905	43	1226	N.D.	
28) 2-Butanone(MEK)	11.440	72	302440	127072.79 ppbv	

99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241314.D
Acq On : 24 Apr 2013 18:29
Operator : JJG
Sample : 130456-62456 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 19:39:12 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
29)	cis-1,2-Dichloroethene	0.000		0	N.D.	
30)	Hexane	11.476	86	293	N.D.	
31)	Chloroform	0.000		0	N.D.	
32)	EthylAcetate	12.082	43	7159	N.D.	
33)	Tetrahydrofuran	12.706	72	17415	70490.92 ppbv	
34)	1,2-Dichloroethane	13.491	62	237	N.D.	
35)	1,1,1-Trichloroethane	0.000		0	N.D.	
37)	Benzene	13.937	78	270558	164454.96 ppbv	1
00						
38)	CarbonTetrachloride	0.000		0	N.D.	
39)	Cyclohexane	14.008	69	114	N.D.	
40)	1,2-Dichloropropane	15.345	63	580	N.D.	
41)	Bromodichloromethane	0.000		0	N.D.	
42)	1,4-Dioxane	15.702	88	374	N.D.	
43)	Trichloroethene(TCE)	0.000		0	N.D.	
44)	2,2,4-Trimethylpentane	14.775	57	3455	N.D.	
45)	Heptane	15.114	71	1224	N.D.	
46)	cis-1,3-Dichloropropene	0.000		0	N.D.	
47)	4-Methyl-2-pentanone(M...	16.558	58	2018	N.D.	
48)	trans-1,3-Dichloropropene	17.717	75	538	N.D.	
49)	1,1,2-Trichloroethane	17.860	97	7112	N.D.	
50)	Toluene	17.681	91	50123	N.D.	
51)	2-Hexanone(MBK)	18.199	58	1189	N.D.	
52)	Dibromochloromethane	0.000		0	N.D.	
53)	1,2-Dibromoethane	0.000		0	N.D.	
54)	Tetrachloroethene(PCE)	0.000		0	N.D.	
56)	Chlorobenzene	20.356	114	598	N.D.	
57)	Ethylbenzene	20.713	91	20949	N.D.	
58)	m&p-Xylene	20.963	106	15086	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Styrene	21.676	104	498	N.D.	
61)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62)	o-Xylene	21.694	91	11061	N.D.	
64)	4-Ethyltoluene	23.691	120	885	N.D.	
65)	1,3,5-Trimethylbenzene	23.798	120	1213	N.D.	
66)	1,2,4-Trimethylbenzene	24.547	120	3537	N.D.	
67)	BenzylChloride(a-Chlor...	25.117	91	837	N.D.	
68)	1,3-Dichlorobenzene	0.000		0	N.D.	
69)	1,4-Dichlorobenzene	25.296	146	2204	N.D.	
70)	1,2-Dichlorobenzene	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241314.D
Acq On : 24 Apr 2013 18:29
Operator : JJG
Sample : 130456-62456 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 19:39:12 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

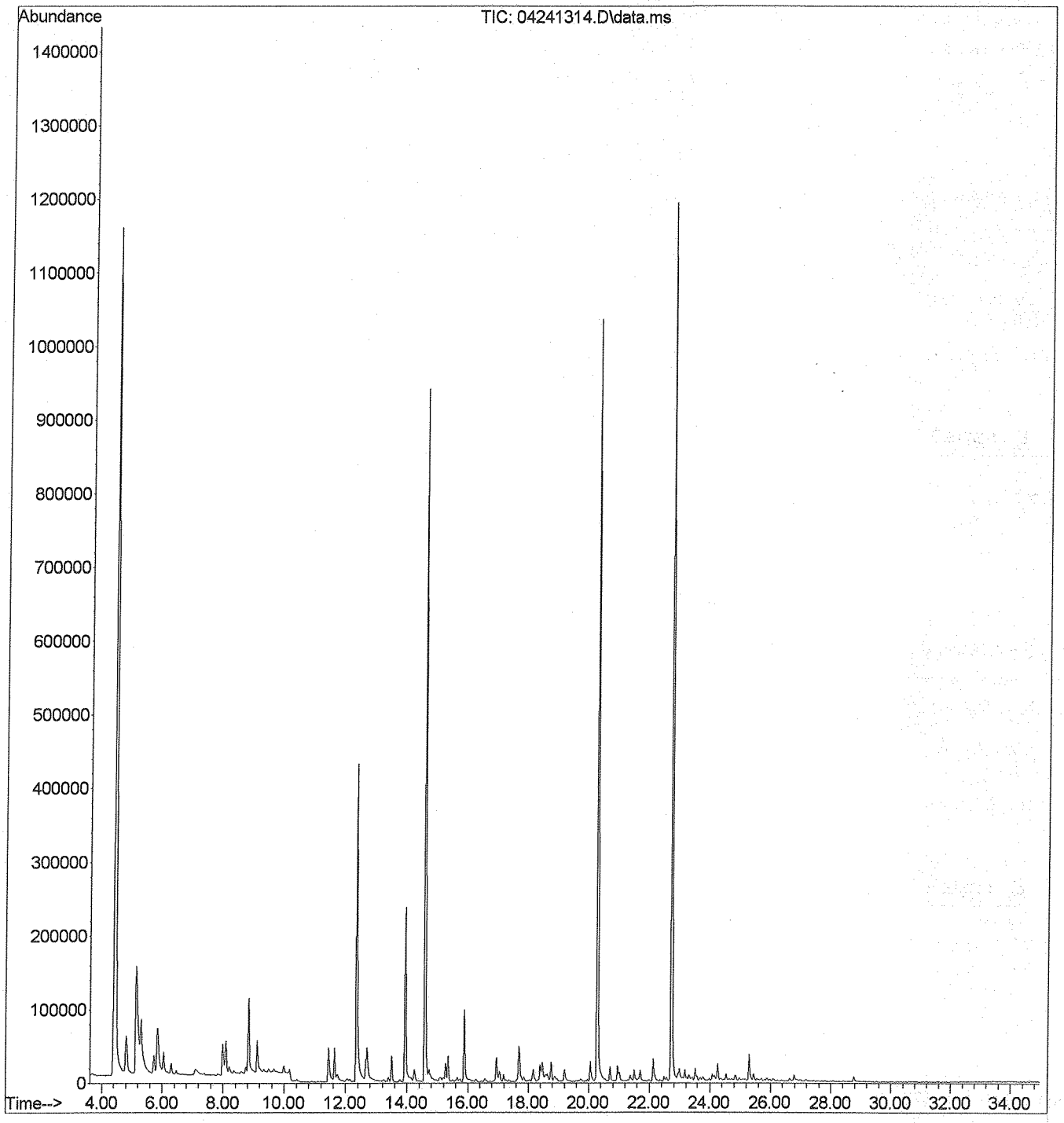
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
71) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
72) Hexachlorobutadiene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241314.D
Acq On : 24 Apr 2013 18:29
Operator : JJG
Sample : 130456-62456 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 19:39:12 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241310.D
Acq On : 24 Apr 2013 15:26
Operator : JJG
Sample : 130456-62465 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 4 Sample Multiplier: 500

Quant Time: Apr 24 18:47:39 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.421	128	189272	10.00 ppbv	0.07
36) 1,4-Difluorobenzene	14.615	114	655558	10.00 ppbv	0.04
55) Chlorobenzene-d5	20.285	117	877396	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.728	174	514437	9.94 ppbv	0.02
Spiked Amount 10.000			Recovery = 99.40%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.872	51	26808	337.79 ppbv #	99
3) Propene	4.799	42	1980558	91,305.86 ppbv	9
4) Dichlorodifluoromethane	4.944	85	55751	457.23 ppbv	99
5) Chloromethane	5.324	52	41519	3032.83 ppbv	97
6) Dichlorotetrafluoroethane	5.360	135	1657	N.D.	
7) VinylChloride	5.704	62	5878	N.D.	
8) Methanol	5.795	31	6181020	Below Cal	
9) 1,3-Butadiene	0.000		0	N.D. d	
10) Bromomethane	6.537	96	4675	N.D.	
11) Chloroethane	6.790	66	24377	3093.99 ppbv	98
12) Dichlorofluoromethane	7.098	67	9692	N.D.	
13) Ethanol	7.080	45	708298	37,583.25 ppbv	9
14) VinylBromide	0.000		0	N.D.	
15) Acetone	8.039	58	5034160m	213,379.85 ppbv	
16) Trichlorofluoromethane	7.749	103	934	N.D.	
17) 2-Propanol(IPA)	8.274	45	7418926m	92,244.33 ppbv	99
18) Acrylonitrile	9.161	52	619	N.D.	
19) 1,1-Dichloroethene	8.817	96	783	N.D.	
20) MethyleneChloride(DCM)	9.396	84	7403	N.D.	
21) AllylChloride	0.000		0	N.D. d	
22) CarbonDisulfide	9.559	76	90466m	615.52 ppbv	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	10.478	96	620	N.D.	
25) 1,1-Dichloroethane	10.941	63	1924	N.D.	
26) MethylTertButylEther(M...	10.478	73	82300	663.49 ppbv #	1
27) VinylAcetate	10.923	43	18501	N.D.	
28) 2-Butanone(MEK)	11.530	72	5680520	244,738.64 ppbv #	9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241310.D
Acq On : 24 Apr 2013 15:26
Operator : JJG
Sample : 130456-62465 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 4 Sample Multiplier: 500

Quant Time: Apr 24 18:47:39 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
29) cis-1,2-Dichloroethene	11.958	96	14695	276.22 ppbv	98
30) Hexane	11.494	86	12106	1140.97 ppbv #	1
31) Chloroform	12.528	83	425	N.D.	
32) EthylAcetate	12.047	43	3719589m	32703.28 ppbv	
33) Tetrahydrofuran	12.725	72	3716259m	154247.03 ppbv	
34) 1,2-Dichloroethane	13.670	62	15009	N.D.	
35) 1,1,1-Trichloroethane	13.420	97	2390	N.D.	
37) Benzene	14.026	78	21455512m	206537.81 ppbv	
38) CarbonTetrachloride	14.151	117	20553	281.45 ppbv #	38
39) Cyclohexane	14.080	69	37038	2417.76 ppbv #	81
40) 1,2-Dichloropropane	15.381	63	68486	1599.13 ppbv #	1
41) Bromodichloromethane	15.916	85	7506	N.D.	
42) 1,4-Dioxane	15.578	88	3902	N.D.	
43) Trichloroethene(TCE)	15.328	130	12409m	266.48 ppbv	
44) 2,2,4-Trimethylpentane	14.793	57	291117m	1576.77 ppbv	
45) Heptane	15.132	71	178348m	5370.67 ppbv	
46) cis-1,3-Dichloropropene	0.000		0	N.D. d	
47) 4-Methyl-2-pentanone(M...	16.558	58	1468852	37796.85 ppbv #	7
48) trans-1,3-Dichloropropene	17.557	75	2276	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.700	91	9006032m	71547.29 ppbv	
51) 2-Hexanone(MBK)	18.145	58	317070	6619.05 ppbv #	98
52) Dibromochloromethane	0.000		0	N.D. d	
53) 1,2-Dibromoethane	19.358	107	228	N.D.	
54) Tetrachloroethene(PCE)	19.037	166	46662	714.20 ppbv	97
56) Chlorobenzene	20.374	114	62660	1328.04 ppbv	97
57) Ethylbenzene	20.731	91	7121695	30428.21 ppbv	95
58) m&p-Xylene	20.981	106	5191381	55638.11 ppbv	95
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	347977m	2307.07 ppbv	
61) 1,1,2,2-Tetrachloroethane	22.318	83	18101	N.D.	
62) o-Xylene	21.712	91	3691330	20356.66 ppbv	98
64) 4-Ethyltoluene	23.691	120	249972	3239.60 ppbv	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241310.D
Acq On : 24 Apr 2013 15:26
Operator : JJG
Sample : 130456-62465 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 4 Sample Multiplier: 500

Quant Time: Apr 24 18:47:39 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
65) 1,3,5-Trimethylbenzene	23.780	120	292988	2659.20	ppbv	93
66) 1,2,4-Trimethylbenzene	24.547	120	512491	4729.55	ppbv	98
67) BenzylChloride(a-Chlor...	0.000		0	N.D.	d	
68) 1,3-Dichlorobenzene	25.064	146	1660	N.D.		
69) 1,4-Dichlorobenzene	25.278	146	143862m	855.04	ppbv	
70) 1,2-Dichlorobenzene	25.849	146	2072	N.D.		
71) 1,2,4-Trichlorobenzene	29.469	180	817	N.D.		
72) Hexachlorobutadiene	30.075	225	187	N.D.		

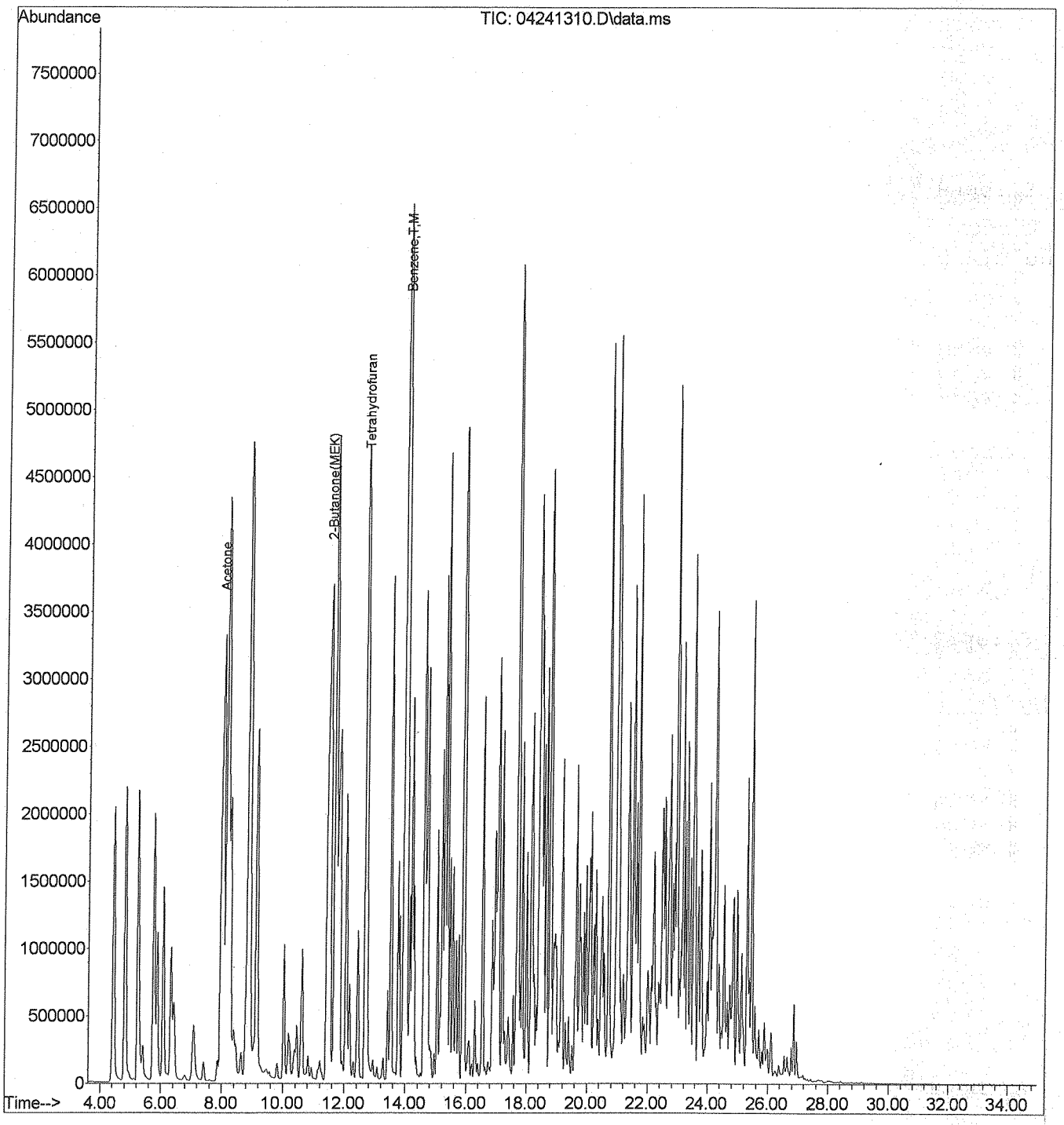
(#) = qualifier out of range (m) = manual integration (+) = signals summed

04/29/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241310.D
Acq On : 24 Apr 2013 15:26
Operator : JJG
Sample : 130456-62465 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 4 Sample Multiplier: 500

Quant Time: Apr 24 18:47:39 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241311.D
Acq On : 24 Apr 2013 16:13
Operator : JJG
Sample : 130456-62465 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 4 Sample Multiplier: 2500

Quant Time: Apr 24 18:51:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.386	128	199310	10.00 ppbv	0.04
36) 1,4-Difluorobenzene	14.597	114	885816	10.00 ppbv	0.02
55) Chlorobenzene-d5	20.285	117	946287	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.728	174	571609	10.24 ppbv	0.02
Spiked Amount 10.000			Recovery = 102.40%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.854	51	6764	N.D.	
3) Propene	4.799	42	5758000	126040.48 ppbv	
4) Dichlorodifluoromethane	4.926	85	11958	N.D.	
5) Chloromethane	5.306	52	10488	3637.65 ppbv	98
6) Dichlorotetrafluoroethane	5.342	135	138	N.D.	
7) VinylChloride	5.668	62	1189	N.D.	
8) Methanol	5.813	31	1627200	73431.16 ppbv	
9) 1,3-Butadiene	0.000		0	N.D. d	
10) Bromomethane	6.464	96	2568	N.D.	
11) Chloroethane	6.736	66	5020	3025.31 ppbv	90
12) Dichlorofluoromethane	7.061	67	2584	N.D.	
13) Ethanol	7.043	45	149133	37573.30 ppbv	9
3					
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.966	58	16509270	332262.67 ppbv	
16) Trichlorofluoromethane	7.677	103	241	N.D.	
17) 2-Propanol(IPA)	8.183	45	2806484	165687.03 ppbv	
18) Acrylonitrile	9.016	52	2449	N.D.	
19) 1,1-Dichloroethene	8.762	96	111	N.D.	
20) MethyleneChloride(DCM)	9.360	84	3674	N.D.	
21) AllylChloride	9.251	39	650	N.D.	
22) CarbonDisulfide	9.522	76	49063	N.D.	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	10.923	63	445	N.D.	
26) MethylTertButylEther(M...	10.460	73	23023	N.D.	
27) VinylAcetate	10.906	43	4330	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241311.D
Acq On : 24 Apr 2013 16:13
Operator : JJG
Sample : 130456-62465 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 4 Sample Multiplier: 2500

Quant Time: Apr 24 18:51:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
28) 2-Butanone(MEK)	11.441	72	1803747	368992.34 ppbv	
29) cis-1,2-Dichloroethene	11.922	96	3319	N.D.	
30) Hexane	11.476	86	4644	N.D.	
31) Chloroform	12.403	83	615	N.D.	
32) EthylAcetate	12.029	43	1104346	46102.96 ppbv #	98
33) Tetrahydrofuran	12.653	72	1621530	319567.88 ppbv #	53
34) 1,2-Dichloroethane	13.634	62	3306	N.D.	
35) 1,1,1-Trichloroethane	13.402	97	509	N.D.	
37) Benzene	13.955	78	10509668	374358.14 ppbv	97
38) CarbonTetrachloride	14.133	117	4730	N.D.	
39) Cyclohexane	14.044	69	12628	3050.27 ppbv #	80
40) 1,2-Dichloropropane	15.346	63	21921	N.D.	
41) Bromodichloromethane	15.881	85	2378	N.D.	
42) 1,4-Dioxane	15.595	88	1161	N.D.	
43) Trichloroethene(TCE)	15.310	130	3383	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	64600	N.D.	
45) Heptane	15.114	71	41799	4657.62 ppbv #	46
46) cis-1,3-Dichloropropene	16.719	75	15395	N.D.	
47) 4-Methyl-2-pentanone(M...	16.523	58	448728	42726.60 ppbv	95
48) trans-1,3-Dichloropropene	17.539	75	751	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.682	91	4166306	122475.29 ppbv	98
51) 2-Hexanone(MBK)	18.127	58	85888	6634.54 ppbv	87
52) Dibromochloromethane	19.019	129	7057	N.D.	
53) 1,2-Dibromoethane	19.233	107	553	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	9978	N.D.	
56) Chlorobenzene	20.356	114	14153	N.D.	
57) Ethylbenzene	20.713	91	2449726	48523.63 ppbv	98
58) m&p-Xylene	20.945	106	1703060	84617.88 ppbv	96
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.640	104	79884	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.318	83	4555	N.D.	
62) o-Xylene	21.694	91	1035923	26484.63 ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241311.D
Acq On : 24 Apr 2013 16:13
Operator : JJG
Sample : 130456-62465 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 4 Sample Multiplier: 2500

Quant Time: Apr 24 18:51:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

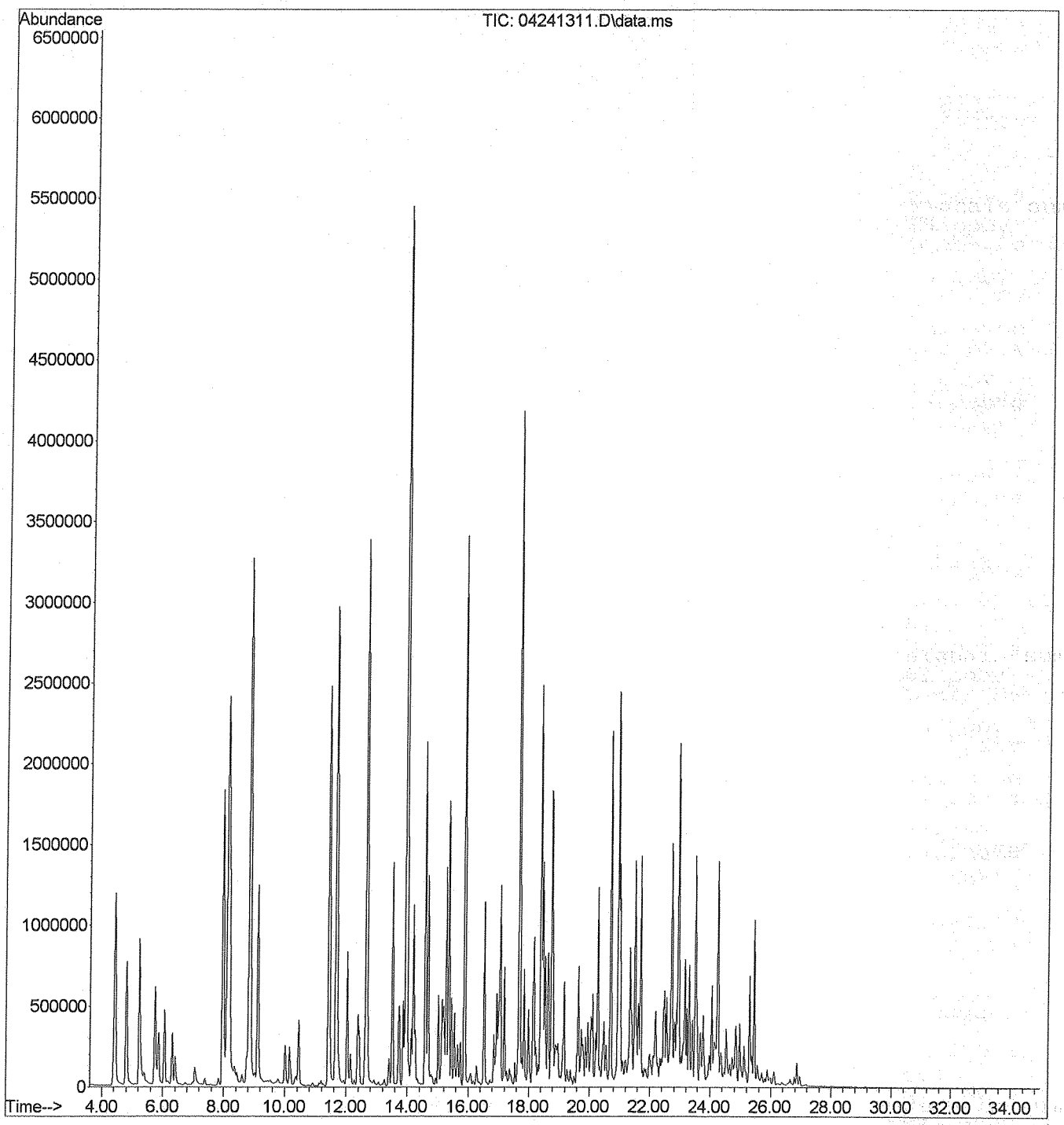
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
64) 4-Ethyltoluene	23.673	120	57257	3440.10 ppbv	99
65) 1,3,5-Trimethylbenzene	23.780	120	68627	2887.61 ppbv #	97
66) 1,2,4-Trimethylbenzene	24.529	120	120421	5152.03 ppbv	97
67) BenzylChloride(a-Chlor...	25.100	91	43338	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	448	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	30565	N.D.	
70) 1,2-Dichlorobenzene	25.849	146	524	N.D.	
71) 1,2,4-Trichlorobenzene	29.469	180	246	N.D.	
72) Hexachlorobutadiene	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241311.D
Acq On : 24 Apr 2013 16:13
Operator : JJG
Sample : 130456-62465 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 4 Sample Multiplier: 2500

Quant Time: Apr 24 18:51:40 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241312.D
Acq On : 24 Apr 2013 16:59
Operator : JJG
Sample : 130456-62474 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 5 Sample Multiplier: 500

Quant Time: Apr 24 18:56:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.368	128	195195	10.00 ppbv	0.02
36) 1,4-Difluorobenzene	14.597	114	924077	10.00 ppbv	0.02
55) Chlorobenzene-d5	20.285	117	949939	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.728	174	582602	10.39 ppbv	0.02
Spiked Amount 10.000			Recovery = 103.90%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.854	51	9376	N.D.	
3) Propene	4.799	42	1468000	65622.81 ppbv	9
7					
4) Dichlorodifluoromethane	4.944	85	37001	294.25 ppbv	100
5) Chloromethane	5.324	52	34449	2440.03 ppbv	88
6) Dichlorotetrafluoroethane	5.360	135	865	N.D.	
7) VinylChloride	5.686	62	1158	N.D.	
8) Methanol	5.813	31	184020m	19117.07 ppbv	
9) 1,3-Butadiene	0.000		0	N.D. d	
10) Bromomethane	6.464	96	2717	N.D.	
11) Chloroethane	6.754	66	6099	750.61 ppbv	94
12) Dichlorofluoromethane	7.061	67	2764	N.D.	
13) Ethanol	7.061	45	32063	1649.68 ppbv	90
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.966	58	519722m	21360.69 ppbv	
16) Trichlorofluoromethane	0.000		0	N.D.	
17) 2-Propanol(IPA)	8.183	45	116209	1401.06 ppbv #	79
18) Acrylonitrile	9.034	52	915	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.360	84	2901	N.D.	
21) AllylChloride	9.269	39	2296	N.D.	
22) CarbonDisulfide	9.522	76	46035m	303.71 ppbv	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	10.923	63	721	N.D.	
26) MethylTertButylEther(M...	10.478	73	29189	N.D.	
27) VinylAcetate	10.923	43	8391	N.D.	
28) 2-Butanone(MEK)	11.423	72	520206m	21732.39 ppbv	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241312.D
Acq On : 24 Apr 2013 16:59
Operator : JJG
Sample : 130456-62474 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 5 Sample Multiplier: 500

Quant Time: Apr 24 18:56:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
29) cis-1,2-Dichloroethene	11.922	96	3682	N.D.	
30) Hexane	11.476	86	26018	2377.75 ppbv	87
31) Chloroform	12.386	83	1114	N.D.	
32) EthylAcetate	12.047	43	56035	477.72 ppbv	95
33) Tetrahydrofuran	12.653	72	583317m	23476.49 ppbv	
34) 1,2-Dichloroethane	13.616	62	2327	N.D.	
35) 1,1,1-Trichloroethane	13.402	97	1533	N.D.	
37) Benzene	13.955	78	8661483	59150.16 ppbv	97
38) CarbonTetrachloride	14.133	117	2446	N.D.	
39) Cyclohexane	14.044	69	12851	595.12 ppbv #	84
40) 1,2-Dichloropropane	0.000		0	N.D. d	
41) Bromodichloromethane	15.738	85	445	N.D.	
42) 1,4-Dioxane	15.613	88	731	N.D.	
43) Trichloroethene(TCE)	15.310	130	2885	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	65605	252.08 ppbv #	89
45) Heptane	15.114	71	86870	1855.81 ppbv	94
46) cis-1,3-Dichloropropene	16.719	75	1671	N.D.	
47) 4-Methyl-2-pentanone(M...	16.540	58	86118	1572.08 ppbv	97
48) trans-1,3-Dichloropropene	0.000		0	N.D. d	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.682	91	2111321m	11899.18 ppbv	
51) 2-Hexanone(MBK)	18.127	58	52900	783.43 ppbv	86
52) Dibromochloromethane	19.019	129	4312	N.D.	
53) 1,2-Dibromoethane	19.233	107	157	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	6156	N.D.	
56) Chlorobenzene	20.356	114	11367	N.D.	
57) Ethylbenzene	20.713	91	1343203	5300.72 ppbv	99
58) m&p-Xylene	20.945	106	808531	8003.61 ppbv	96
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.640	104	30709	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.318	83	2867	N.D.	
62) o-Xylene	21.694	91	726225	3699.09 ppbv #	100
64) 4-Ethyltoluene	23.673	120	39892	477.51 ppbv #	94
65) 1,3,5-Trimethylbenzene	23.780	120	78915	661.55 ppbv #	94
66) 1,2,4-Trimethylbenzene	24.529	120	162473	1384.89 ppbv	97
67) BenzylChloride(a-Chlor...	0.000		0	N.D. d	
68) 1,3-Dichlorobenzene	25.064	146	774	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	63224	347.07 ppbv #	81
70) 1,2-Dichlorobenzene	25.849	146	1044	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241312.D
Acq On : 24 Apr 2013 16:59
Operator : JJG
Sample : 130456-62474 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 5 Sample Multiplier: 500

Quant Time: Apr 24 18:56:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
71) 1,2,4-Trichlorobenzene	29.468	180	110	N.D.		
72) Hexachlorobutadiene	0.000		0	N.D.		

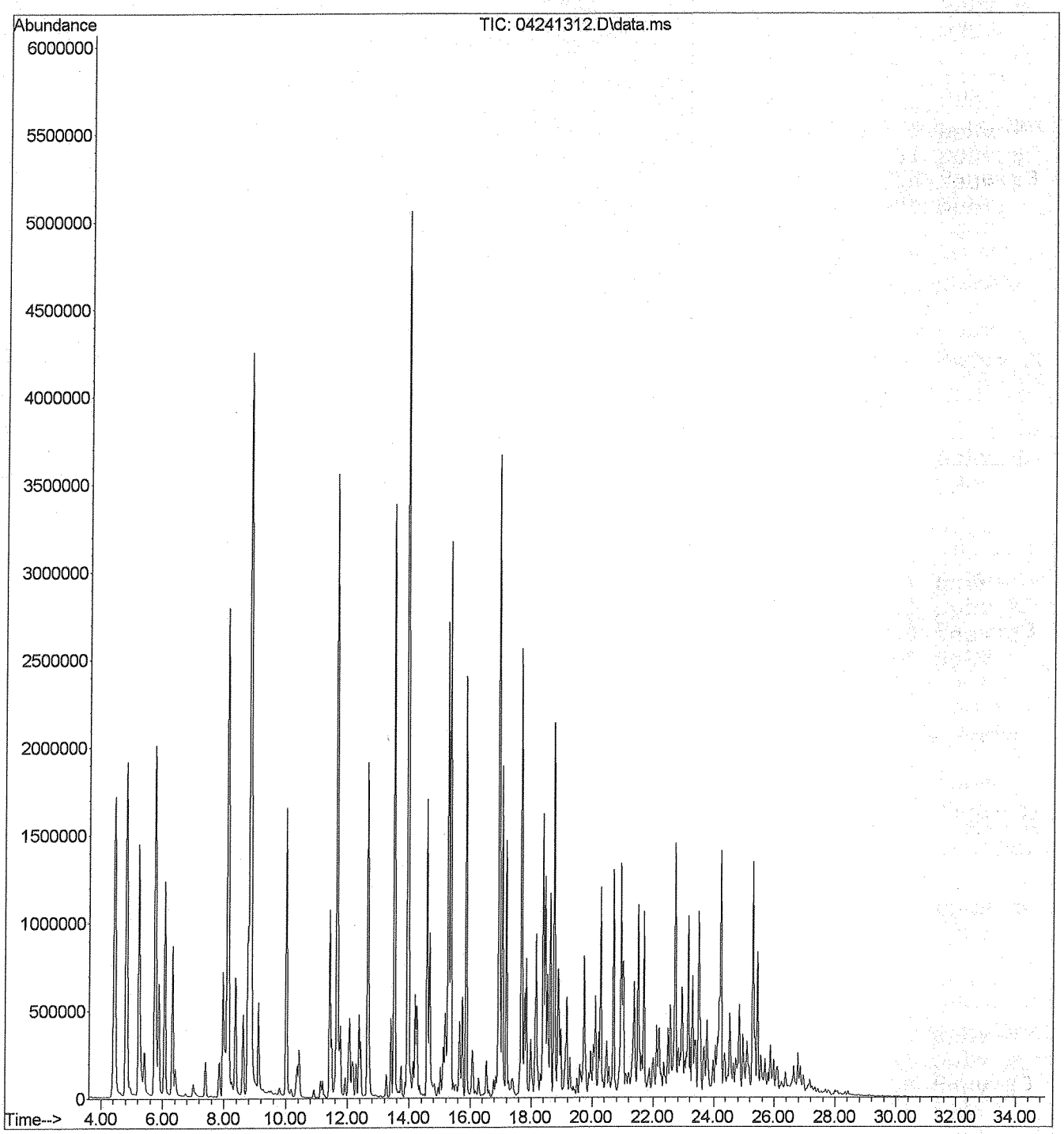
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Ea 4/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241312.D
Acq On : 24 Apr 2013 16:59
Operator : JJG
Sample : 130456-62474 x500
Misc : IS/Surr: PS082712-02 + 100mL x100
ALS Vial : 5 Sample Multiplier: 500

Quant Time: Apr 24 18:56:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



4/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241313.D
Acq On : 24 Apr 2013 17:44
Operator : JJG
Sample : 130456-62474 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 5 Sample Multiplier: 2500

Quant Time: Apr 24 19:36:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.368	128	200228	10.00 ppbv	0.02
36) 1,4-Difluorobenzene	14.579	114	1021041	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	964882	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	599349	10.53 ppbv	0.00
Spiked Amount 10.000			Recovery = 105.30%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.836	51	2487	N.D.	
3) Propene	4.781	42	429177m	93514.53 ppbv	
4) Dichlorodifluoromethane	4.908	85	8115	N.D.	
5) Chloromethane	5.306	52	8063	2783.75 ppbv	96
6) Dichlorotetrafluoroethane	5.342	135	141	N.D.	
7) VinylChloride	5.668	62	273	N.D.	
8) Methanol	5.849	31	48791m	17023.62 ppbv	
9) 1,3-Butadiene	0.000		0	N.D. d	
10) Bromomethane	6.446	96	1784	N.D.	
11) Chloroethane	6.736	66	1392	N.D.	
12) Dichlorofluoromethane	6.989	67	862	N.D.	
13) Ethanol	7.098	45	6593	N.D.	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.966	58	131504m	26344.92 ppbv	
16) Trichlorofluoromethane	0.000		0	N.D.	
17) 2-Propanol(IPA)	8.183	45	33249	N.D.	
18) Acrylonitrile	9.016	52	123	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.342	84	2664	N.D.	
21) AllylChloride	9.251	39	663	N.D.	
22) CarbonDisulfide	9.504	76	30396	N.D.	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	10.478	73	6625	N.D.	
27) VinylAcetate	10.906	43	2118	N.D.	
28) 2-Butanone(MEK)	11.423	72	119094m	24251.35 ppbv	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241313.D
Acq On : 24 Apr 2013 17:44
Operator : JJG
Sample : 130456-62474 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 5 Sample Multiplier: 2500

Quant Time: Apr 24 19:36:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
29) cis-1,2-Dichloroethene	11.922	96	807	N.D.	
30) Hexane	11.476	86	6054	2696.80 ppbv	89
31) Chloroform	12.386	83	336	N.D.	
32) EthylAcetate	12.065	43	12575	N.D.	
33) Tetrahydrofuran	12.671	72	149061m	29241.96 ppbv	
34) 1,2-Dichloroethane	13.616	62	1218	N.D.	
35) 1,1,1-Trichloroethane	13.402	97	134	N.D.	
37) Benzene	13.937	78	3014162m	93146.22 ppbv	
38) CarbonTetrachloride	0.000		0	N.D.	
39) Cyclohexane	14.026	69	3107	N.D.	
40) 1,2-Dichloropropane	15.346	63	11878	N.D.	
41) Bromodichloromethane	15.863	85	190	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.310	130	708	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	14667	N.D.	
45) Heptane	15.114	71	20713	N.D.	
46) cis-1,3-Dichloropropene	16.719	75	1152	N.D.	
47) 4-Methyl-2-pentanone(M...	16.523	58	18717	N.D.	
48) trans-1,3-Dichloropropene	17.700	75	7816	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.682	91	535082	13646.40 ppbv	9
51) 2-Hexanone(MBK)	18.145	58	11665	N.D.	
52) Dibromochloromethane	19.019	129	923	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	1229	N.D.	
56) Chlorobenzene	20.356	114	2200	N.D.	
57) Ethylbenzene	20.695	91	313624	6092.47 ppbv	99
58) m&p-Xylene	20.945	106	182761	8905.63 ppbv	95
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	10046	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.318	83	500	N.D.	
62) o-Xylene	21.694	91	168846	4233.56 ppbv	99
64) 4-Ethyltoluene	23.691	120	9267	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	17854	N.D.	
66) 1,2,4-Trimethylbenzene	24.529	120	34096	N.D.	
67) BenzylChloride(a-Chlor...	25.100	91	12944	N.D.	
68) 1,3-Dichlorobenzene	25.064	146	153	N.D.	
69) 1,4-Dichlorobenzene	25.278	146	13400	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241313.D
Acq On : 24 Apr 2013 17:44
Operator : JJG
Sample : 130456-62474 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 5 Sample Multiplier: 2500

Quant Time: Apr 24 19:36:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

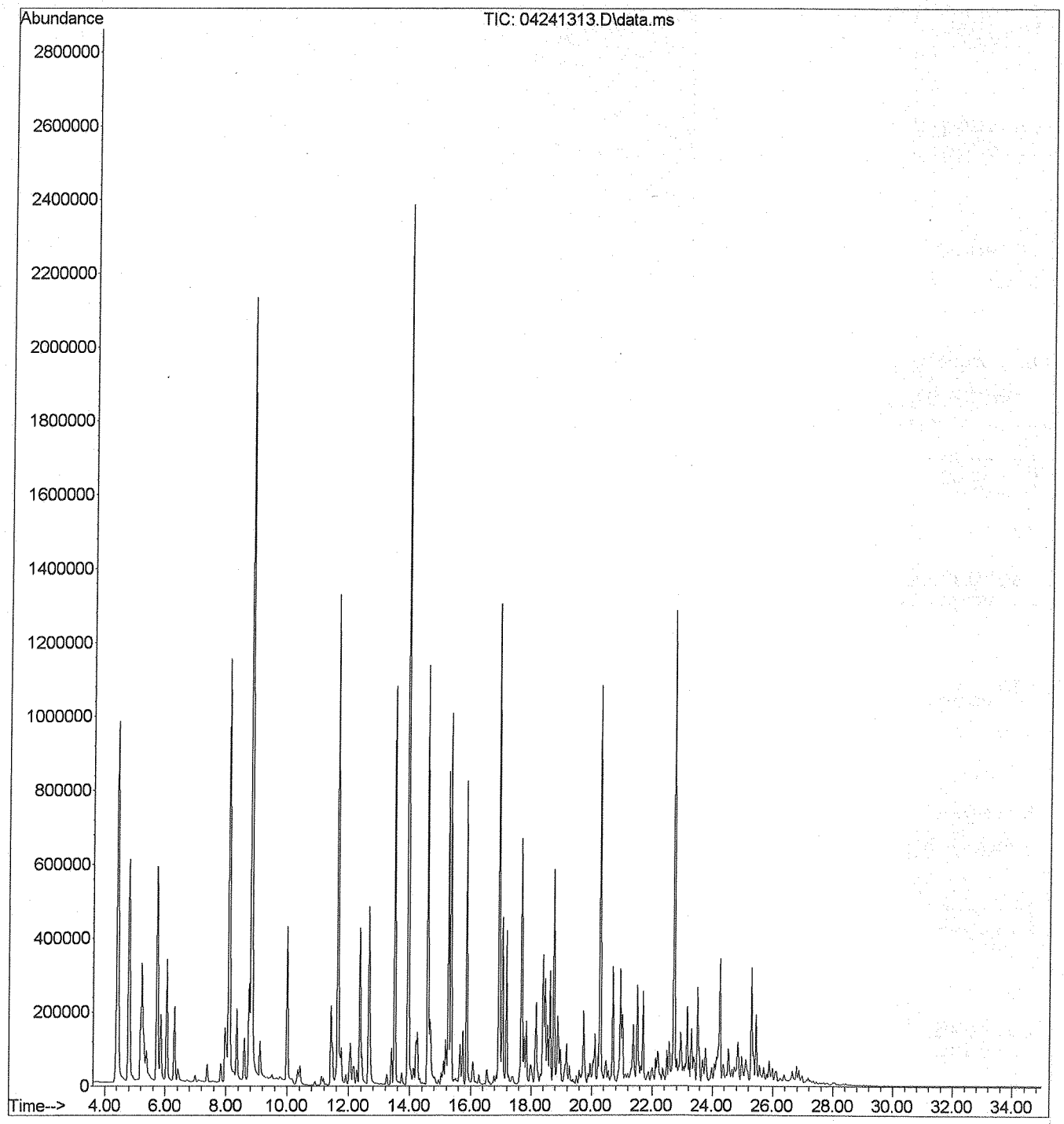
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
71) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
72) Hexachlorobutadiene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241313.D
Acq On : 24 Apr 2013 17:44
Operator : JJG
Sample : 130456-62474 x2500
Misc : IS/Surr: PS082712-02 + 20mL x100
ALS Vial : 5 Sample Multiplier: 2500

Quant Time: Apr 24 19:36:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241314.D
Acq On : 24 Apr 2013 18:29
Operator : JJG
Sample : 130456-62456 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 19:39:12 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	194083	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	1038210	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	959731	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	600808	10.61 ppbv	0.00
Spiked Amount 10.000			Recovery = 106.10%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.	
3) Propene	4.799	42	298250m	134088.16 ppbv	
4) Dichlorodifluoromethane	0.000		0	N.D.	
5) Chloromethane	5.306	52	676	N.D.	
6) Dichlorotetrafluoroethane	0.000		0	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.831	31	1520380m	1377033.29 ppbv	
9) 1,3-Butadiene	5.867	54	691	N.D.	
10) Bromomethane	6.428	96	911	N.D.	
11) Chloroethane	6.808	66	369	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.097	45	216970m	112273.40 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	41931	173324.71 ppbv	
16) Trichlorofluoromethane	0.000		0	N.D.	
17) 2-Propanol(IPA)	8.201	45	24741	N.D.	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.323	84	2628	N.D.	
21) AllylChloride	9.251	39	415	N.D.	
22) CarbonDisulfide	9.486	76	11799	N.D.	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	10.477	73	143	N.D.	
27) VinylAcetate	10.905	43	1226	N.D.	
28) 2-Butanone(MEK)	11.440	72	302440m	127072.79 ppbv	

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241314.D
Acq On : 24 Apr 2013 18:29
Operator : JJG
Sample : 130456-62456 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 19:39:12 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
29) cis-1,2-Dichloroethene	0.000		0	N.D.
30) Hexane	11.476	86	293	N.D.
31) Chloroform	0.000		0	N.D.
32) EthylAcetate	12.082	43	7159	N.D.
33) Tetrahydrofuran	12.706	72	174150	70490.92 ppbv
34) 1,2-Dichloroethane	13.491	62	237	N.D.
35) 1,1,1-Trichloroethane	0.000		0	N.D.
37) Benzene	13.937	78	270558	164454.96 ppbv 100
38) CarbonTetrachloride	0.000		0	N.D.
39) Cyclohexane	14.008	69	114	N.D.
40) 1,2-Dichloropropane	15.345	63	580	N.D.
41) Bromodichloromethane	0.000		0	N.D.
42) 1,4-Dioxane	15.702	88	374	N.D.
43) Trichloroethene(TCE)	0.000		0	N.D.
44) 2,2,4-Trimethylpentane	14.775	57	3455	N.D.
45) Heptane	15.114	71	1224	N.D.
46) cis-1,3-Dichloropropene	0.000		0	N.D.
47) 4-Methyl-2-pentanone(M...	16.558	58	2018	N.D.
48) trans-1,3-Dichloropropene	17.717	75	538	N.D.
49) 1,1,2-Trichloroethane	17.860	97	7112	N.D.
50) Toluene	17.681	91	50123	N.D.
51) 2-Hexanone(MBK)	18.199	58	1189	N.D.
52) Dibromochloromethane	0.000		0	N.D.
53) 1,2-Dibromoethane	0.000		0	N.D.
54) Tetrachloroethene(PCE)	0.000		0	N.D.
56) Chlorobenzene	20.356	114	598	N.D.
57) Ethylbenzene	20.713	91	20949	N.D.
58) m&p-Xylene	20.963	106	15086	N.D.
59) Bromoform	0.000		0	N.D.
60) Styrene	21.676	104	498	N.D.
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
62) o-Xylene	21.694	91	11061	N.D.
64) 4-Ethyltoluene	23.691	120	885	N.D.
65) 1,3,5-Trimethylbenzene	23.798	120	1213	N.D.
66) 1,2,4-Trimethylbenzene	24.547	120	3537	N.D.
67) BenzylChloride(a-Chlor...	25.117	91	837	N.D.
68) 1,3-Dichlorobenzene	0.000		0	N.D.
69) 1,4-Dichlorobenzene	25.296	146	2204	N.D.
70) 1,2-Dichlorobenzene	0.000		0	N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241314.D
Acq On : 24 Apr 2013 18:29
Operator : JJG
Sample : 130456-62456 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 19:39:12 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
71) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
72) Hexachlorobutadiene	0.000		0	N.D.		

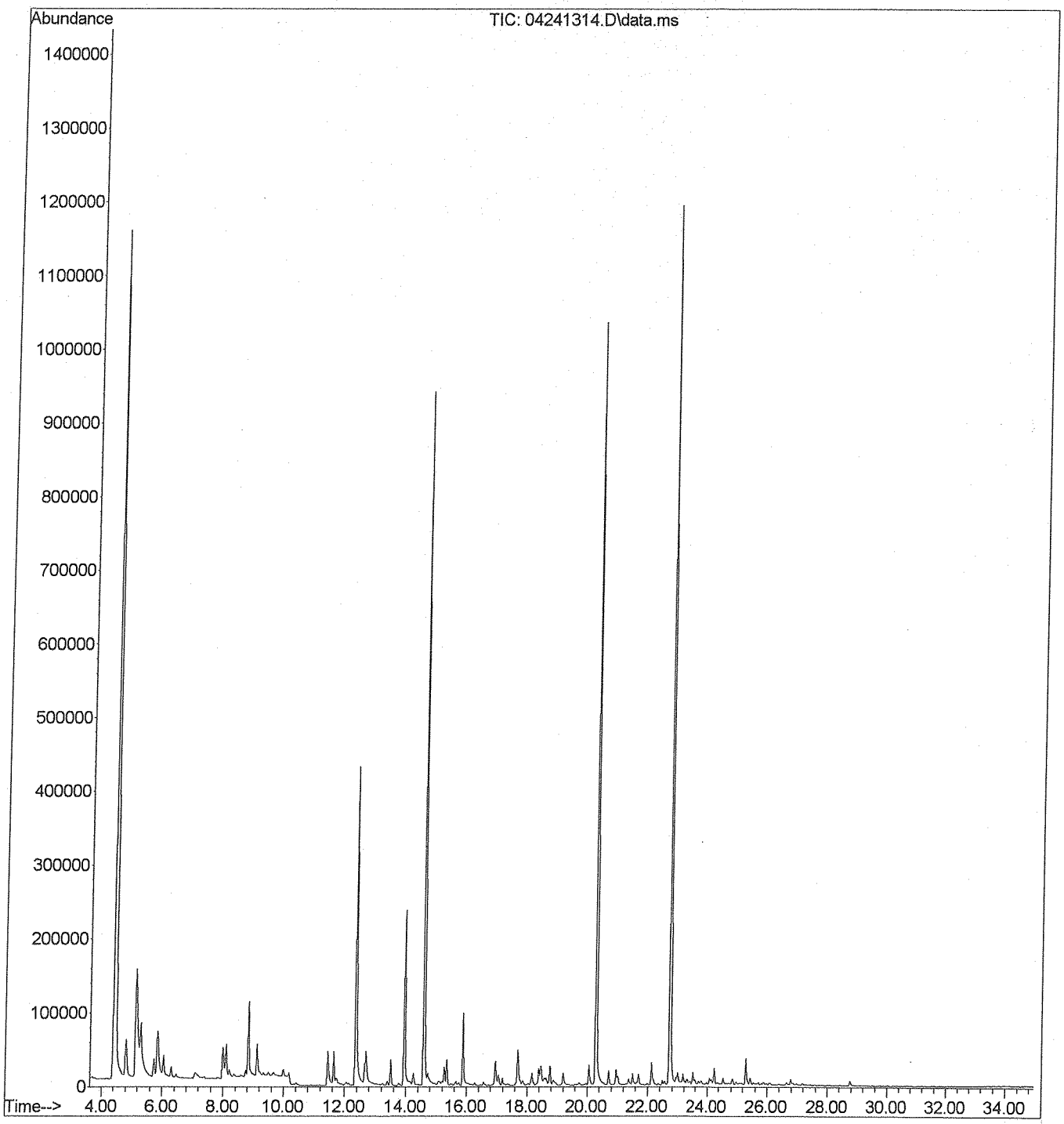
(#) = qualifier out of range (m) = manual integration (+) = signals summed

04/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241314.D
Acq On : 24 Apr 2013 18:29
Operator : JJG
Sample : 130456-62456 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 19:39:12 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



4/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241315.D
Acq On : 24 Apr 2013 19:15
Operator : JJG
Sample : 130456-62456 x50,000 dp
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 20:13:33 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	189012	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	1024866	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	973888	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	595292	10.36 ppbv	0.00
Spiked Amount 10.000			Recovery = 103.60%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.	
3) Propene	4.799	42	27853m	128581.97 ppbv	
4) Dichlorodifluoromethane	0.000		0	N.D.	
5) Chloromethane	5.306	52	638	N.D.	
6) Dichlorotetrafluoroethane	0.000		0	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	5.831	31	147997m	1376063.46 ppbv	
9) 1,3-Butadiene	5.867	54	891	N.D.	
10) Bromomethane	6.446	96	493	N.D.	
11) Chloroethane	6.772	66	459	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.098	45	21321m	113287.73 ppbv	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.984	58	40997m	174010.50 ppbv	
16) Trichlorofluoromethane	0.000		0	N.D.	
17) 2-Propanol(IPA)	8.202	45	24340	N.D.	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.324	84	2247	N.D.	
21) AllylChloride	9.251	39	738	N.D.	
22) CarbonDisulfide	9.486	76	9147	N.D.	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	10.496	73	124	N.D.	
27) VinylAcetate	10.888	43	967	N.D.	
28) 2-Butanone(MEK)	11.441	72	28195m	121642.00 ppbv	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241315.D
Acq On : 24 Apr 2013 19:15
Operator : JJG
Sample : 130456-62456 x50,000 dp
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 20:13:33 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.458	86	248	N.D.	
31) Chloroform	0.000		0	N.D.	
32) EthylAcetate	12.083	43	6428	N.D.	
33) Tetrahydrofuran	12.707	72	16633	69131.89 ppbv	9
6					
34) 1,2-Dichloroethane	13.509	62	271	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	264596	162925.10 ppbv	
38) CarbonTetrachloride	0.000		0	N.D.	
39) Cyclohexane	14.008	69	128	N.D.	
40) 1,2-Dichloropropane	15.346	63	587	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	15.702	88	471	N.D.	
43) Trichloroethene(TCE)	0.000		0	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	4325	N.D.	
45) Heptane	15.114	71	1171	N.D.	
46) cis-1,3-Dichloropropene	0.000		0	N.D.	
47) 4-Methyl-2-pentanone(M...	16.558	58	2025	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	565	N.D.	
49) 1,1,2-Trichloroethane	17.860	97	6480	N.D.	
50) Toluene	17.682	91	47818	N.D.	
51) 2-Hexanone(MBK)	18.217	58	1572	N.D.	
52) Dibromochloromethane	0.000		0	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	0.000		0	N.D.	
56) Chlorobenzene	20.357	114	477	N.D.	
57) Ethylbenzene	20.713	91	19747	N.D.	
58) m&p-Xylene	20.963	106	14405	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.694	104	641	N.D.	
61) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
62) o-Xylene	21.694	91	9865	N.D.	
64) 4-Ethyltoluene	23.691	120	678	N.D.	
65) 1,3,5-Trimethylbenzene	23.798	120	1230	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	3157	N.D.	
67) BenzylChloride(a-Chlor...	25.118	91	585	N.D.	
68) 1,3-Dichlorobenzene	0.000		0	N.D.	
69) 1,4-Dichlorobenzene	25.296	146	1910	N.D.	
70) 1,2-Dichlorobenzene	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241315.D
Acq On : 24 Apr 2013 19:15
Operator : JJG
Sample : 130456-62456 x50,000 dp
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 20:13:33 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

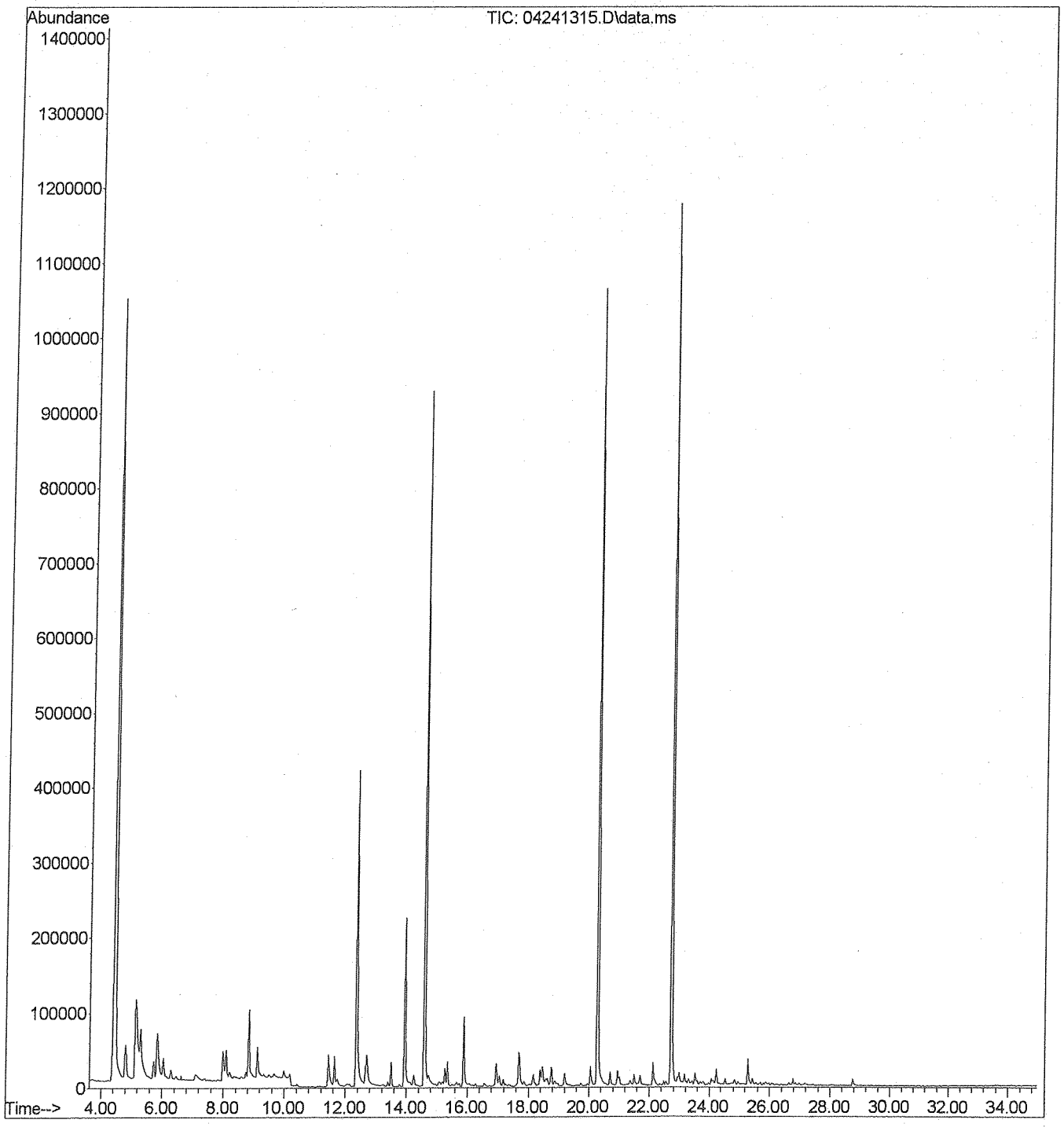
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
71) 1,2,4-Trichlorobenzene	0.000		0	N.D.		
72) Hexachlorobutadiene	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241315.D
Acq On : 24 Apr 2013 19:15
Operator : JJG
Sample : 130456-62456 x50,000 dp
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 6 Sample Multiplier: 50000

Quant Time: Apr 24 20:13:33 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



4/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241316.D
Acq On : 24 Apr 2013 20:00
Operator : JJG
Sample : 130456-62465 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 7 Sample Multiplier: 50000

Quant Time: Apr 24 20:34:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	12.350	128	185634	10.00 ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	991077	10.00 ppbv	0.00
55) Chlorobenzene-d5	20.285	117	937893	10.00 ppbv	0.00
System Monitoring Compounds					
63) 4-Bromofluorobenzene(BFB)	22.710	174	585621	10.58 ppbv	0.00
Spiked Amount 10.000			Recovery = 105.80%		
Target Compounds					Qvalue
2) Chlorodifluoromethane	4.853	51	504	N.D.	
3) Propene	4.799	42	28381m	133403.63 ppbv	
4) Dichlorodifluoromethane	4.908	85	524	N.D.	
5) Chloromethane	5.306	52	363	N.D.	
6) Dichlorotetrafluoroethane	0.000		0	N.D.	
7) VinylChloride	0.000		0	N.D.	
8) Methanol	0.000		0	N.D. d	
9) 1,3-Butadiene	5.867	54	1040	N.D.	
10) Bromomethane	6.446	96	705	N.D.	
11) Chloroethane	6.736	66	1139	N.D.	
12) Dichlorofluoromethane	0.000		0	N.D.	
13) Ethanol	7.116	45	8869	N.D.	
14) VinylBromide	0.000		0	N.D.	
15) Acetone	7.966	58	103922m	449120.35 ppbv	
16) Trichlorofluoromethane	0.000		0	N.D.	
17) 2-Propanol(IPA)	8.165	45	158967m	201527.58 ppbv	
18) Acrylonitrile	0.000		0	N.D.	
19) 1,1-Dichloroethene	0.000		0	N.D.	
20) MethyleneChloride(DCM)	9.323	84	2495	N.D.	
21) AllylChloride	9.414	39	671	N.D.	
22) CarbonDisulfide	9.486	76	7382	N.D.	
23) Trichlorotrifluoroethane	0.000		0	N.D.	
24) trans-1,2-Dichloroethene	0.000		0	N.D.	
25) 1,1-Dichloroethane	0.000		0	N.D.	
26) MethylTertButylEther(M...	10.477	73	1010	N.D.	
27) VinylAcetate	10.888	43	794	N.D.	
28) 2-Butanone(MEK)	11.405	72	123298m	541625.78 ppbv	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241316.D
Acq On : 24 Apr 2013 20:00
Operator : JJG
Sample : 130456-62465 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 7 Sample Multiplier: 50000

Quant Time: Apr 24 20:34:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
29) cis-1,2-Dichloroethene	0.000		0	N.D.	
30) Hexane	11.476	86	306	N.D.	
31) Chloroform	0.000		0	N.D.	
32) EthylAcetate	12.029	43	57163	51243.67 ppbv	9
9					
33) Tetrahydrofuran	12.653	72	132620m	561240.13 ppbv	
34) 1,2-Dichloroethane	13.491	62	808	N.D.	
35) 1,1,1-Trichloroethane	0.000		0	N.D.	
37) Benzene	13.937	78	1094828m	697124.43 ppbv	
38) CarbonTetrachloride	14.115	117	356	N.D.	
39) Cyclohexane	14.026	69	645	N.D.	
40) 1,2-Dichloropropane	15.346	63	1608	N.D.	
41) Bromodichloromethane	0.000		0	N.D.	
42) 1,4-Dioxane	0.000		0	N.D.	
43) Trichloroethene(TCE)	15.292	130	250	N.D.	
44) 2,2,4-Trimethylpentane	14.775	57	3802	N.D.	
45) Heptane	15.114	71	2791	N.D.	
46) cis-1,3-Dichloropropene	16.701	75	2948	N.D.	
47) 4-Methyl-2-pentanone(M...	16.522	58	24284	N.D.	
48) trans-1,3-Dichloropropene	17.682	75	3440	N.D.	
49) 1,1,2-Trichloroethane	0.000		0	N.D. d	
50) Toluene	17.682	91	311378m	163625.65 ppbv	
51) 2-Hexanone(MBK)	18.181	58	4380	N.D.	
52) Dibromochloromethane	19.019	129	399	N.D.	
53) 1,2-Dibromoethane	0.000		0	N.D.	
54) Tetrachloroethene(PCE)	19.019	166	588	N.D.	
56) Chlorobenzene	20.356	114	941	N.D.	
57) Ethylbenzene	20.695	91	146858	58699.30 ppbv	9
9					
58) m&p-Xylene	20.945	106	103588	103858.31 ppbv	
94					
59) Bromoform	0.000		0	N.D.	
60) Styrene	21.658	104	5372	N.D.	
61) 1,1,2,2-Tetrachloroethane	22.318	83	522	N.D.	
62) o-Xylene	21.694	91	59320	N.D.	
64) 4-Ethyltoluene	23.691	120	2964	N.D.	
65) 1,3,5-Trimethylbenzene	23.780	120	3765	N.D.	
66) 1,2,4-Trimethylbenzene	24.547	120	6067	N.D.	
67) BenzylChloride(a-Chlor...	25.100	91	3040	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241316.D
Acq On : 24 Apr 2013 20:00
Operator : JJG
Sample : 130456-62465 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 7 Sample Multiplier: 50000

Quant Time: Apr 24 20:34:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

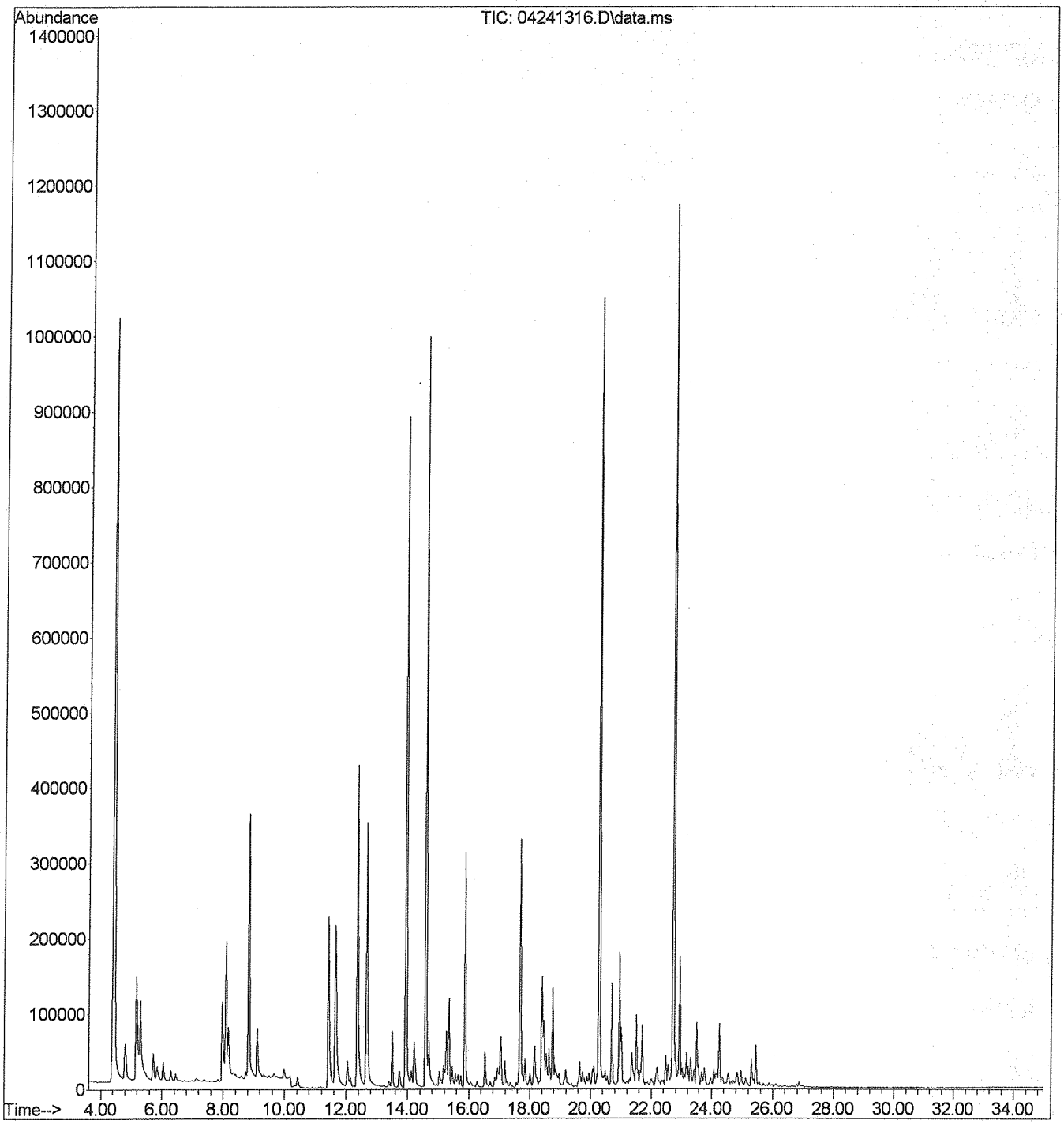
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,3-Dichlorobenzene	0.000		0		N.D.	
69) 1,4-Dichlorobenzene	25.296	146	1627		N.D.	
70) 1,2-Dichlorobenzene	0.000		0		N.D.	
71) 1,2,4-Trichlorobenzene	0.000		0		N.D.	
72) Hexachlorobutadiene	0.000		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241316.D
Acq On : 24 Apr 2013 20:00
Operator : JJG
Sample : 130456-62465 x50,000
Misc : IS/Surr: PS082712-02 + 100mL x10,000
ALS Vial : 7 Sample Multiplier: 50000

Quant Time: Apr 24 20:34:57 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



MS #3 Instrument Logbook

Sequence Name: C:\msdchem\1\sequence\2013\042413.S
Comment: GCMS-03
Operator: JJG
Data Path: C:\MSDCHEM\1\MS03\2013\042413\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info
1)	Sample	1	04241301 TO15-5MS TO15 BFB 042413
2)	Sample	1	04241302 TO15-5MS TO15 CCV 042413
3)	Sample	1	04241303 TO15-5MS TO15 LCSD 042413
4)	Sample	1	04241304 TO15-5MS TO15 MB 042413
5)	Sample	2	04241305 TO15-5MS System Blank
6)	Sample	2	04241306 TO15-5MS 130456-62447 x1
7)	Sample	2	04241307 TO15-5MS 130456-62447 x2
8)	Sample	3	04241308 TO15-5MS 130456-62456 x500
9)	Sample	3	04241309 TO15-5MS 130456-62456 x2500
10)	Sample	4	04241310 TO15-5MS 130456-62465 x500
11)	Sample	4	04241311 TO15-5MS 130456-62465 x2500
12)	Sample	5	04241312 TO15-5MS 130456-62474 x500
13)	Sample	5	04241313 TO15-5MS 130456-62474 x2500
14)	Sample	6	04241314 TO15-5MS 130456-62456 x50,000
15)	Sample	6	04241315 TO15-5MS 130456-62456 x50,000 dp
16)	Sample	7	04241316 TO15-5MS 130456-62465 x50,000
17)	Sample	7	04241317 TO15-5MS 130456-62465 x50,000 dp
18)	Sample	3	04241318 TO15-5MS Lab Air 042413 x1
19)	Sample	4	04241319 TO15-5MS Lab Air 042413 x1
20)	Sample	5	04241320 TO15-5MS Lab Air 042413 x1
21)	Sample	6	04241321 TO15-5MS 130456-62456 x50,000
22)	Sample	6	04241322 TO15-5MS 130456-62456 x50,000 dp

04/24/13

Comments:

Analyst: [signature] **Date:** 04/25/13

TO-15 RAW QC & ICAL SUMMARY

Calibration Status Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 041813.M
Title : TO-15/TO-14
Last Update : Thu Apr 18 19:34:22 2013
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
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2	1.0	1	10	C:\msdchem\1\MS03\2013\041813\04181311.D
3	2.0	2	10	C:\msdchem\1\MS03\2013\041813\04181310.D
4	5.0	5	10	C:\msdchem\1\MS03\2013\041813\04181309.D
5	10	10	10	C:\msdchem\1\MS03\2013\041813\04181308.D
6	20	20	10	C:\msdchem\1\MS03\2013\041813\04181307.D
7	50	51	10	C:\msdchem\1\MS03\2013\041813\04181306.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.5	Apr 18 19:27 2013	Apr 18 18:22 2013	18 Apr 2013 17:14
2	1.0	Apr 18 19:27 2013	Apr 18 18:19 2013	18 Apr 2013 16:27
3	2.0	Apr 18 19:27 2013	Apr 18 18:16 2013	18 Apr 2013 15:41
4	5.0	Apr 18 19:27 2013	Apr 18 18:12 2013	18 Apr 2013 14:56
5	10	Apr 18 19:26 2013	Apr 18 18:09 2013	18 Apr 2013 14:10
6	20	Apr 18 19:26 2013	Apr 18 17:51 2013	18 Apr 2013 13:24
7	50	Apr 18 19:26 2013	Apr 18 17:48 2013	18 Apr 2013 12:37

041813.M Thu Apr 18 19:35:59 2013

Response Factor Report MS03 Enhanced

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 041813.M
Title : TO-15/TO-14
Last Update : Thu Apr 18 19:34:22 2013
Response Via : Initial Calibration

Calibration Files
0.5 =04181312.D 1.0 =04181311.D 2.0 =04181310.D 5.0 =04181309.D 10 =04181308.D 20 =04181307.D
50 =04181306.D

		Compound	0.5	1.0	2.0	5.0	10	20	50	Avg	%RSD
1)	I	Bromochloromethane	ISTD								
2)		Chlorodifluoro...	2.331	2.349	2.207	2.147	2.057	1.841	1.744	2.097	11.10
3)		Propene	0.617	0.618	0.586	0.590	0.574	0.526	0.500	0.573	7.75
4)		Dichlorodifluo...	3.497	3.598	3.458	3.260	3.167	2.826	2.740	3.221	10.35
5)		Chloromethane	0.384	0.420	0.409	0.387	0.367	0.310	0.255	0.362	16.23
6)		Dichlorotetraf...	2.316	2.434	2.322	2.237	2.162	1.950	1.738	2.166	11.22
7)		VinylChloride	1.221	1.283	1.246	1.234	1.252	1.112	1.115	1.209	5.61
8)		Methanol		0.506	0.439	0.384	0.370	0.343	0.295	0.390	19.02
9)		1,3-Butadiene	0.811	0.840	0.838	0.830	0.839	0.732	0.668	0.794	8.53
10)		Bromomethane	0.946	0.912	0.866	0.821	0.822	0.753	0.624	0.821	13.08
11)		Chloroethane	0.279	0.228	0.209	0.199	0.194	0.177	0.171	0.208	17.60
12)		Dichlorofluoro...	2.483	2.601	2.534	2.439	2.432	2.227	2.030	2.392	8.26
13)		Ethanol	0.598	0.564	0.525	0.519	0.488	0.425	0.367	0.498	16.01
14)		VinylBromide	0.923	0.971	0.977	0.980	0.982	0.904	0.853	0.941	5.29
15)		Acetone	0.841	0.776	0.679	0.550	0.538	0.506	0.472	0.623	22.99
16)		Trichlorofluor...	2.065	2.035	1.955	1.894	1.840	1.682	1.535	1.858	10.31
17)		2-Propanol(IPA)	2.559	2.647	2.472	2.287	1.909	1.581	1.417	2.125	23.14
18)		Acrylonitrile	0.926	0.982	0.941	0.996	0.940	0.868	0.743	0.914	9.42
19)	M,T	1,1-Dichloroet...	1.261	1.279	1.259	1.226	1.218	1.090	0.987	1.189	9.16
20)	M,T	MethyleneChlor...	1.365	1.275	1.133	1.126	1.117	1.011	0.864	1.127	14.57
21)		AllylChloride	1.095	1.091	1.066	1.027	0.943	0.818	0.708	0.964	15.54
22)		CarbonDisulfide	4.932	4.577	4.018	3.753	3.606	3.306	2.987	3.883	17.69
23)		Trichlorotrifl...	1.880	1.895	1.802	1.692	1.596	1.384	1.160	1.630	16.77
24)		trans-1,2-Dich...	1.311	1.399	1.360	1.306	1.288	1.150	1.063	1.268	9.40
25)		1,1-Dichloroet...	2.932	3.039	2.856	2.799	2.618	2.287	1.921	2.636	15.16
26)		MethylTertButy...	3.644	3.688	3.616	3.428	3.208	2.859	2.494	3.277	13.84
27)		VinylAcetate	3.406	3.442	3.484	3.480	3.358	3.064	2.466	3.243	11.47
28)		2-Butanone(MEK)	0.568	0.661	0.641	0.649	0.655	0.577	0.540	0.613	8.08

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 041813.M
Title : TO-15/TO-14

29)		cis-1,2-Dichlo...	1.433	1.567	1.545	1.445	1.431	1.265	1.151	1.405	10.60
30)		Hexane	0.317	0.318	0.291	0.300	0.284	0.253	0.199	0.280	14.96
31)		Chloroform	2.984	3.039	2.875	2.783	2.641	2.472	2.177	2.710	11.28
32)		EthylAcetate	3.170	3.291	3.249	3.194	3.055	2.719	2.355	3.005	11.45
33)		Tetrahydrofuran	0.684	0.697	0.680	0.661	0.632	0.586	0.514	0.636	10.34
34)		1,2-Dichloroet...	2.152	2.177	2.147	1.955	1.914	1.800	1.647	1.970	10.24
35)		1,1,1-Trichlor...	3.142	3.189	3.018	2.881	2.849	2.549	2.286	2.845	11.46
36)	I	1,4-Difluorobenzene	----------ISTD----------								
37)	T,M	Benzene	0.966	0.934	0.847	0.796	0.769	0.690	0.544	0.792	18.29
38)		CarbonTetrachl...	0.629	0.646	0.607	0.570	0.549	0.496	0.403	0.557	15.22
39)		Cyclohexane	0.134	0.136	0.129	0.118	0.115	0.102	0.085	0.117	15.65
40)		1,2-Dichloropr...	0.382	0.380	0.355	0.325	0.317	0.292	0.234	0.327	16.06
41)		Bromodichlorom...	0.405	0.421	0.405	0.385	0.364	0.336	0.283	0.371	13.03
42)		1,4-Dioxane	0.215	0.222	0.204	0.192	0.192	0.176	0.156	0.194	11.78
43)	M,T	Trichloroethen...	0.397	0.402	0.377	0.362	0.359	0.321	0.267	0.355	13.30
44)		2,2,4-Trimethy...	1.651	1.655	1.571	1.460	1.399	1.213	0.907	1.408	19.18
45)		Heptane	0.272	0.289	0.280	0.263	0.254	0.232	0.185	0.253	14.04
46)		cis-1,3-Dichlo...	0.452	0.483	0.460	0.441	0.441	0.405	0.347	0.433	10.27
47)		4-Methyl-2-pen...	0.313	0.343	0.328	0.307	0.299	0.270	0.215	0.296	14.32
48)		trans-1,3-Dich...	0.424	0.456	0.456	0.437	0.425	0.416	0.357	0.425	7.88
49)		1,1,2-Trichlor...	0.390	0.396	0.376	0.351	0.338	0.303	0.249	0.343	15.30
50)	M,T	Toluene	1.105	1.101	1.058	0.989	0.932	0.845	0.690	0.960	15.80
51)		2-Hexanone(MBK)	0.378	0.405	0.410	0.375	0.372	0.340	0.277	0.365	12.45
52)		Dibromochlorom...	0.672	0.670	0.658	0.625	0.607	0.552	0.437	0.603	14.04
53)		1,2-Dibromoethane	0.594	0.624	0.603	0.548	0.544	0.492	0.403	0.544	14.01
54)	M,T	Tetrachloroeth...	0.586	0.594	0.551	0.503	0.488	0.426	0.341	0.498	18.27
55)	I	Chlorobenzene-d5	----------ISTD----------								
56)	M,T	Chlorobenzene	0.318	0.304	0.286	0.275	0.262	0.240	0.198	0.269	15.10
57)	M,T	Ethylbenzene	1.561	1.539	1.472	1.401	1.311	1.135	0.917	1.334	17.61
58)	M,T	m&p-Xylene	0.634	0.632	0.597	0.551	0.508	0.442	0.359	0.532	19.32
59)		Bromoform	0.759	0.771	0.740	0.686	0.656	0.577	0.454	0.663	17.24
60)		Styrene	0.958	0.975	0.946	0.881	0.859	0.759	0.638	0.860	14.28
61)		1,1,2,2-Tetrac...	0.933	0.957	0.925	0.862	0.784	0.678	0.526	0.809	19.64
62)	M,T	o-Xylene	1.247	1.208	1.163	1.075	0.994	0.848	0.698	1.033	19.47
63)	SR	4-Bromofluorob...	0.586	0.590	0.595	0.589	0.597	0.585	0.589	0.590	0.76
64)		4-Ethyltoluene	0.489	0.504	0.490	0.465	0.438	0.392	0.301	0.440	16.45

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 041813.M
Title : TO-15/TO-14

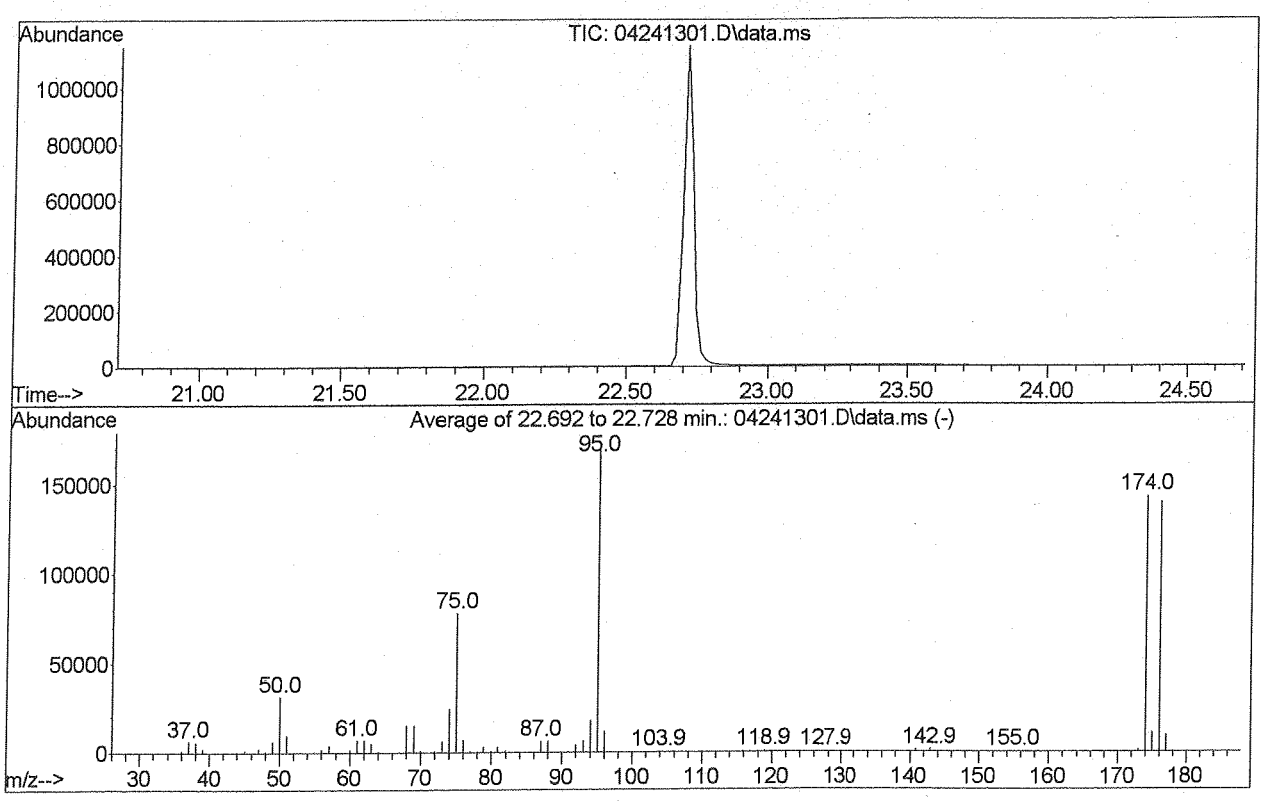
65)	1,3,5-Trimethy...	0.732	0.727	0.693	0.670	0.623	0.525	0.425	0.628	18.23
66)	1,2,4-Trimethy...	0.688	0.714	0.683	0.653	0.613	0.545	0.427	0.618	16.41
67)	BenzylChloride...	0.903	0.848	0.935	1.003	1.018	0.953	0.863	0.932	7.01
68)	1,3-Dichlorobe...	1.025	1.051	1.060	1.015	0.956	0.828	0.670	0.944	15.30
69)	1,4-Dichlorobe...	1.121	1.134	1.072	0.993	0.920	0.814	0.657	0.959	18.28
70)	1,2-Dichlorobe...	1.220	1.211	1.112	1.034	0.964	0.841	0.671	1.008	19.89
71)	1,2,4-Trichlor...	1.059	1.130	1.066	0.991	0.936	0.826	0.645	0.950	17.61
72)	Hexachlorobuta...	0.887	0.876	0.817	0.749	0.680	0.579	0.432	0.717	23.26

(#) = Out of Range

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241301.D
Acq On : 24 Apr 2013 8:35 am
Operator : JJG
Sample : TO15 BFB 042413
Misc : IS/Surr: PS082712-02 + 50mL
ALS Vial : 1 Sample Multiplier: 1

Integration File: PAMS.P

Method : C:\msdchem\1\METHODS\2013\041813.M
Title : TO-15/TO-14
Last Update : Thu Apr 18 19:34:22 2013



AutoFind: Scans 1064, 1065, 1066; Background Corrected with Scan 1060

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	31256	PASS
75	95	30	60	45.6	77883	PASS
95	95	100	100	100.0	170835	PASS
96	95	5	9	6.8	11653	PASS
173	174	0.00	2	0.8	1143	PASS
174	95	50	100	83.7	142944	PASS
175	174	5	9	7.6	10838	PASS
176	174	95	101	97.6	139560	PASS
177	176	5	9	6.7	9367	PASS

04/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241302.D
Acq On : 24 Apr 2013 9:21
Operator : JJG
Sample : TO15 CCV 042413
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 09:59:20 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	174974	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	940074	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	899748	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.728	174	545975	10.28	ppbv	0.02
Spiked Amount 10.000			Recovery = 102.80%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	380974m	10.39	ppbv	
3) Propene	4.781	42	109699m	10.94	ppbv	
4) Dichlorodifluoromethane	4.908	85	602298	10.69	ppbv	100
5) Chloromethane	5.288	52	61349m	9.70	ppbv	
6) Dichlorotetrafluoroethane	5.324	135	390756	10.31	ppbv	97
7) VinylChloride	5.650	62	214429m	10.14	ppbv	
8) Methanol	5.849	31	31831m	4.99	ppbv	
9) 1,3-Butadiene	5.849	54	137192m	9.87	ppbv	
10) Bromomethane	6.446	96	124641m	8.68	ppbv	
11) Chloroethane	6.736	66	32293	8.87	ppbv	95
12) Dichlorofluoromethane	7.007	67	435922m	10.41	ppbv	
13) Ethanol	7.043	45	84124m	9.66	ppbv	
14) VinylBromide	7.260	108	175911m	10.68	ppbv	
15) Acetone	7.966	58	99500m	9.12	ppbv	
16) Trichlorofluoromethane	7.677	103	363478	11.18	ppbv	99
17) 2-Propanol(IPA)	8.147	45	366857m	9.87	ppbv	
18) Acrylonitrile	8.961	52	167721m	10.49	ppbv	
19) 1,1-Dichloroethene	8.726	96	220134	10.58	ppbv	99
20) MethyleneChloride(DCM)	9.323	84	197550m	10.02	ppbv	
21) AllylChloride	9.305	39	186167m	11.03	ppbv	
22) CarbonDisulfide	9.486	76	636120m	9.36	ppbv	
23) Trichlorotrifluoroethane	8.998	103	305338	10.71	ppbv	98
24) trans-1,2-Dichloroethene	10.424	96	232372m	10.47	ppbv	
25) 1,1-Dichloroethane	10.906	63	474615	10.29	ppbv	100
26) MethylTertButylEther(M...	10.442	73	628675	10.96	ppbv	99
27) VinylAcetate	10.888	43	581059m	10.24	ppbv	
28) 2-Butanone(MEK)	11.423	72	117378	10.94	ppbv	94
29) cis-1,2-Dichloroethene	11.904	96	261970	10.65	ppbv	98
30) Hexane	11.476	86	52864	10.78	ppbv	96
31) Chloroform	12.493	83	527964	11.13	ppbv	98
32) EthylAcetate	12.011	43	602008	11.45	ppbv	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241302.D
Acq On : 24 Apr 2013 9:21
Operator : JJG
Sample : TO15 CCV 042413
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 09:59:20 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

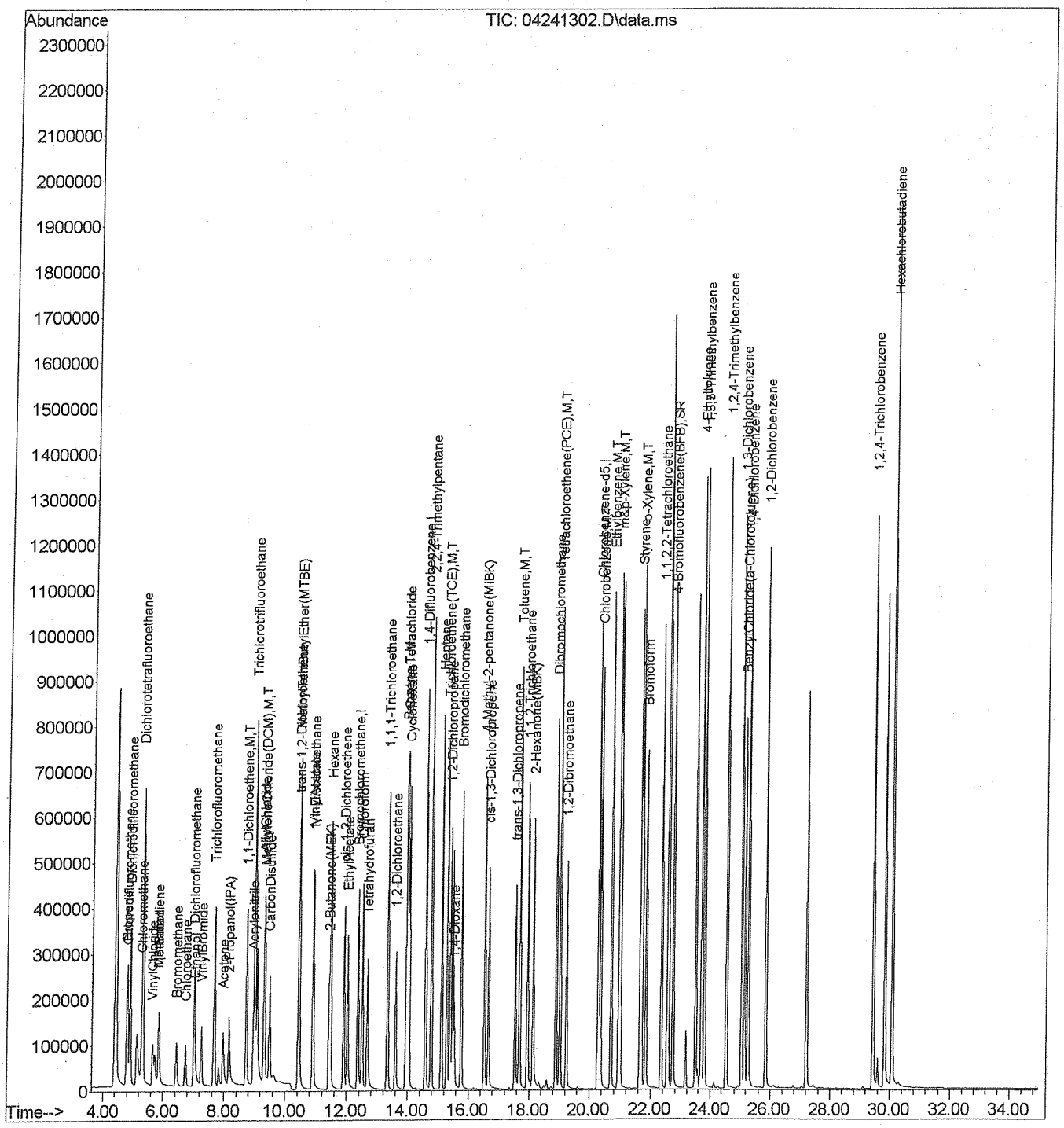
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Tetrahydrofuran	12.671	72	117676m	10.57	ppbv	
34) 1,2-Dichloroethane	13.598	62	376273	10.91	ppbv	97
35) 1,1,1-Trichloroethane	13.331	97	570968	11.47	ppbv	99
37) Benzene	13.937	78	725821	9.74	ppbv	99
38) CarbonTetrachloride	13.973	117	563887	10.77	ppbv	98
39) Cyclohexane	14.026	69	111921	10.19	ppbv	98
40) 1,2-Dichloropropane	15.399	63	306104	9.97	ppbv	96
41) Bromodichloromethane	15.756	85	375850	10.76	ppbv	99
42) 1,4-Dioxane	15.524	88	175435m	9.63	ppbv	
43) Trichloroethene(TCE)	15.292	130	343053	10.27	ppbv	99
44) 2,2,4-Trimethylpentane	14.775	57	1390204	10.50	ppbv	99
45) Heptane	15.114	71	248034	10.42	ppbv	97
46) cis-1,3-Dichloropropene	16.647	75	452531	11.12	ppbv	94
47) 4-Methyl-2-pentanone(M...	16.523	58	282413	10.14	ppbv	96
48) trans-1,3-Dichloropropene	17.539	75	400086	10.02	ppbv	99
49) 1,1,2-Trichloroethane	17.931	97	330368	10.24	ppbv	98
50) Toluene	17.682	91	934658	10.36	ppbv	99
51) 2-Hexanone(MBK)	18.127	58	364946	10.63	ppbv	98
52) Dibromochloromethane	18.876	129	654347	11.54	ppbv	99
53) 1,2-Dibromoethane	19.233	107	521905	10.20	ppbv	100
54) Tetrachloroethene(PCE)	19.019	166	475397	10.15	ppbv	99
56) Chlorobenzene	20.356	114	245952	10.17	ppbv	99
57) Ethylbenzene	20.695	91	1234230	10.28	ppbv	99
58) m&p-Xylene	20.945	106	927496	19.39	ppbv	97
59) Bromoform	21.837	173	618433	10.36	ppbv	100
60) Styrene	21.640	104	801568	10.36	ppbv	99
61) 1,1,2,2-Tetrachloroethane	22.336	83	744740	10.23	ppbv	99
62) o-Xylene	21.694	91	961269	10.34	ppbv	99
64) 4-Ethyltoluene	23.673	120	400857	10.13	ppbv	100
65) 1,3,5-Trimethylbenzene	23.780	120	556364	9.85	ppbv	96
66) 1,2,4-Trimethylbenzene	24.529	120	560392	10.09	ppbv	97
67) BenzylChloride(a-Chlor...	25.153	91	901758	10.75	ppbv	100
68) 1,3-Dichlorobenzene	25.046	146	862625	10.16	ppbv	100
69) 1,4-Dichlorobenzene	25.260	146	832433m	9.65	ppbv	
70) 1,2-Dichlorobenzene	25.831	146	901433m	9.94	ppbv	
71) 1,2,4-Trichlorobenzene	29.433	180	771716m	9.02	ppbv	
72) Hexachlorobutadiene	30.075	225	643584m	9.97	ppbv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241302.D
Acq On : 24 Apr 2013 9:21
Operator : JJG
Sample : TO15 CCV 042413
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 09:59:20 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



4/24/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241303.D
Acq On : 24 Apr 2013 10:07
Operator : JJG
Sample : TO15 LCSD 042413
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 13:11:49 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	182437	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	963058	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	925440	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.728	174	547148	10.02	ppbv	0.02
Spiked Amount 10.000			Recovery = 100.20%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	4.817	51	387249	10.12	ppbv	99
3) Propene	4.781	42	114863	10.99	ppbv	99
4) Dichlorodifluoromethane	4.908	85	598835	10.19	ppbv	99
5) Chloromethane	5.288	52	64630m	9.80	ppbv	
6) Dichlorotetrafluoroethane	5.342	135	409552	10.37	ppbv	85
7) VinylChloride	5.668	62	223305m	10.12	ppbv	
8) Methanol	5.849	31	32826m	4.94	ppbv	
9) 1,3-Butadiene	5.867	54	148575m	10.26	ppbv	
10) Bromomethane	6.446	96	138158m	9.23	ppbv	
11) Chloroethane	6.736	66	33461m	8.81	ppbv	
12) Dichlorofluoromethane	7.025	67	455674m	10.44	ppbv	
13) Ethanol	7.043	45	84531m	9.31	ppbv	
14) VinylBromide	7.260	108	179276m	10.44	ppbv	
15) Acetone	7.966	58	103939m	9.14	ppbv	
16) Trichlorofluoromethane	7.677	103	362134	10.68	ppbv	100
17) 2-Propanol(IPA)	8.165	45	367486m	9.48	ppbv	
18) Acrylonitrile	8.962	52	178286m	10.70	ppbv	
19) 1,1-Dichloroethene	8.726	96	226249	10.43	ppbv	99
20) MethyleneChloride(DCM)	9.323	84	202673m	9.85	ppbv	
21) AllylChloride	9.305	39	192918m	10.97	ppbv	
22) CarbonDisulfide	9.486	76	662431m	9.35	ppbv	
23) Trichlorotrifluoroethane	8.998	103	310679	10.45	ppbv	99
24) trans-1,2-Dichloroethene	10.424	96	239844m	10.37	ppbv	
25) 1,1-Dichloroethane	10.906	63	484226	10.07	ppbv	100
26) MethylTertButylEther(M...	10.442	73	639486	10.70	ppbv	98
27) VinylAcetate	10.888	43	591319m	9.99	ppbv	
28) 2-Butanone(MEK)	11.423	72	119672	10.70	ppbv	93
29) cis-1,2-Dichloroethene	11.904	96	261936	10.22	ppbv	99
30) Hexane	11.476	86	52670	10.30	ppbv	96
31) Chloroform	12.511	83	537746	10.88	ppbv	99
32) EthylAcetate	12.011	43	619491	11.30	ppbv	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241303.D
Acq On : 24 Apr 2013 10:07
Operator : JJG
Sample : TO15 LCSD 042413
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 13:11:49 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

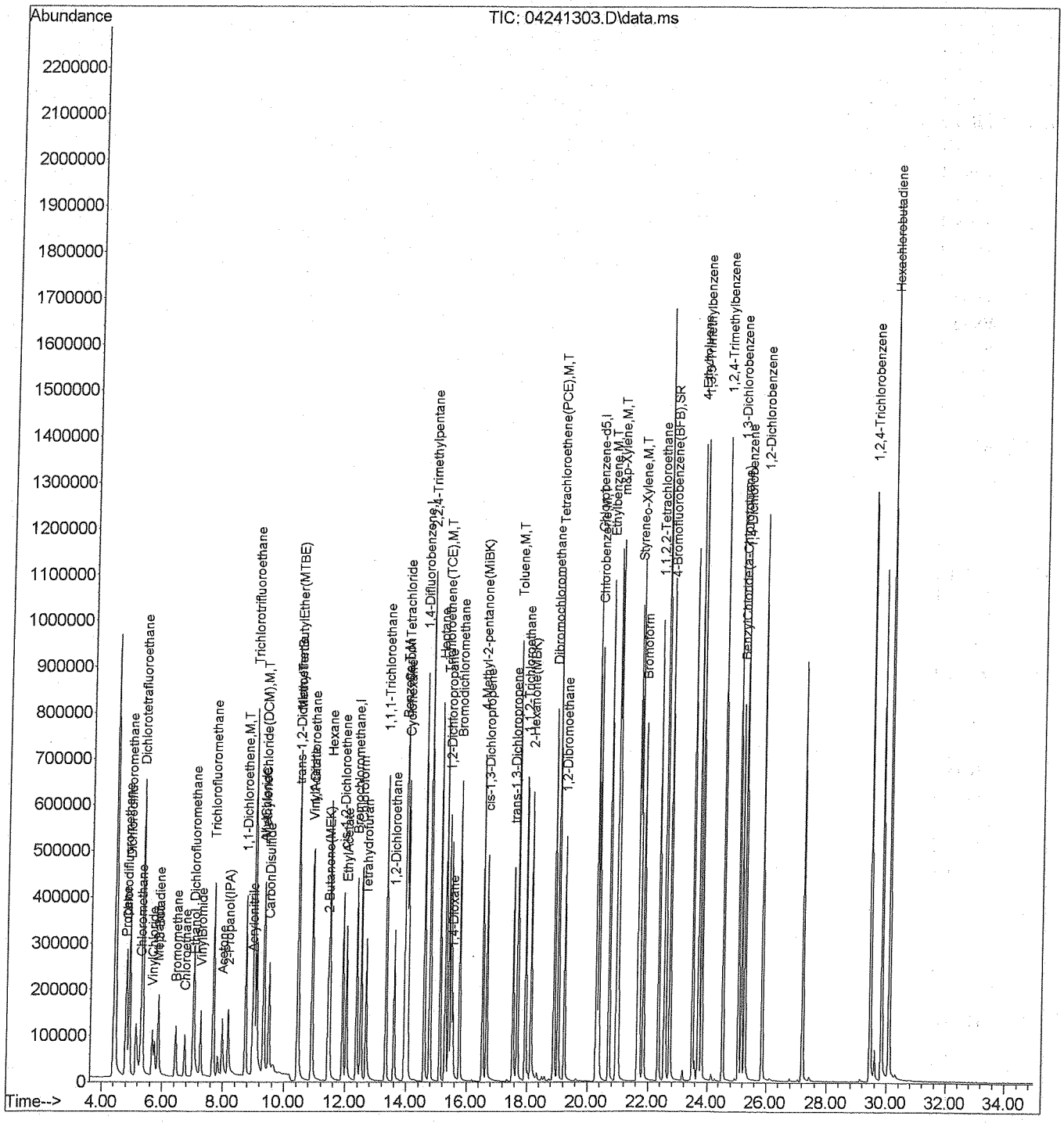
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
33) Tetrahydrofuran	12.671	72	118358	10.19 ppbv	95
34) 1,2-Dichloroethane	13.598	62	385957	10.74 ppbv	98
35) 1,1,1-Trichloroethane	13.331	97	575958	11.10 ppbv	99
37) Benzene	13.937	78	729195	9.56 ppbv	98
38) CarbonTetrachloride	13.973	117	578001	10.78 ppbv	100
39) Cyclohexane	14.026	69	111067	9.87 ppbv	96
40) 1,2-Dichloropropane	15.399	63	304536	9.68 ppbv	97
41) Bromodichloromethane	15.756	85	374978	10.48 ppbv	100
42) 1,4-Dioxane	15.524	88	180811m	9.68 ppbv	
43) Trichloroethene(TCE)	15.292	130	350447	10.25 ppbv	100
44) 2,2,4-Trimethylpentane	14.775	57	1418396	10.46 ppbv	99
45) Heptane	15.114	71	246578	10.11 ppbv	98
46) cis-1,3-Dichloropropene	16.665	75	461095	11.06 ppbv	99
47) 4-Methyl-2-pentanone(M...	16.523	58	286609	10.04 ppbv	97
48) trans-1,3-Dichloropropene	17.539	75	405131	9.91 ppbv	98
49) 1,1,2-Trichloroethane	17.931	97	338339	10.23 ppbv	98
50) Toluene	17.682	91	948553	10.26 ppbv	99
51) 2-Hexanone(MBK)	18.128	58	371171	10.55 ppbv	97
52) Dibromochloromethane	18.876	129	661004	11.38 ppbv	99
53) 1,2-Dibromoethane	19.233	107	540178	10.31 ppbv	100
54) Tetrachloroethene(PCE)	19.019	166	491989	10.25 ppbv	99
56) Chlorobenzene	20.357	114	251862	10.12 ppbv	99
57) Ethylbenzene	20.695	91	1247379	10.11 ppbv	99
58) m&p-Xylene	20.998	106	953008	19.37 ppbv	97
59) Bromoform	21.837	173	632681	10.30 ppbv	99
60) Styrene	21.640	104	784574	9.86 ppbv	98
61) 1,1,2,2-Tetrachloroethane	22.336	83	728849	9.73 ppbv	99
62) o-Xylene	21.694	91	963353	10.07 ppbv	98
64) 4-Ethyltoluene	23.673	120	421038	10.35 ppbv	99
65) 1,3,5-Trimethylbenzene	23.780	120	573438	9.87 ppbv	96
66) 1,2,4-Trimethylbenzene	24.529	120	568997	9.96 ppbv	97
67) BenzylChloride(a-Chlor...	25.153	91	912045	10.58 ppbv	99
68) 1,3-Dichlorobenzene	25.046	146	889497	10.19 ppbv	99
69) 1,4-Dichlorobenzene	25.278	146	863986m	9.74 ppbv	
70) 1,2-Dichlorobenzene	25.831	146	910755m	9.77 ppbv	
71) 1,2,4-Trichlorobenzene	29.451	180	824397m	9.37 ppbv	
72) Hexachlorobutadiene	30.075	225	642450m	9.68 ppbv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241303.D
Acq On : 24 Apr 2013 10:07
Operator : JJG
Sample : TO15 LCSD 042413
Misc : IS/Surr: PS082712-02 + Cal: PS040413-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 13:11:49 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241304.D
Acq On : 24 Apr 2013 10:55
Operator : JJG
Sample : TO15 MB 042413
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 12:07:13 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	12.350	128	173532	10.00	ppbv	0.00
36) 1,4-Difluorobenzene	14.579	114	968982	10.00	ppbv	0.00
55) Chlorobenzene-d5	20.285	117	907484	10.00	ppbv	0.00
System Monitoring Compounds						
63) 4-Bromofluorobenzene(BFB)	22.710	174	543946	10.16	ppbv	0.00
Spiked Amount 10.000			Recovery = 101.60%			
Target Compounds						Qvalue
2) Chlorodifluoromethane	0.000		0	N.D.		
3) Propene	4.836	42	695	N.D.		
4) Dichlorodifluoromethane	0.000		0	N.D.		
5) Chloromethane	0.000		0	N.D.		
6) Dichlorotetrafluoroethane	0.000		0	N.D.		
7) VinylChloride	0.000		0	N.D.		
8) Methanol	5.903	31	1425	N.D.		
9) 1,3-Butadiene	0.000		0	N.D.		
10) Bromomethane	6.446	96	1214	N.D.		
11) Chloroethane	6.826	66	111	N.D.		
12) Dichlorofluoromethane	0.000		0	N.D.		
13) Ethanol	7.188	45	253	N.D.		
14) VinylBromide	0.000		0	N.D.		
15) Acetone	8.147	58	1438	N.D.		
16) Trichlorofluoromethane	0.000		0	N.D.		
17) 2-Propanol(IPA)	8.328	45	683	N.D.		
18) Acrylonitrile	0.000		0	N.D.		
19) 1,1-Dichloroethene	0.000		0	N.D.		
20) MethyleneChloride(DCM)	9.342	84	2426	N.D.		
21) AllylChloride	0.000		0	N.D.		
22) CarbonDisulfide	9.523	76	2700	N.D.		
23) Trichlorotrifluoroethane	0.000		0	N.D.		
24) trans-1,2-Dichloroethene	0.000		0	N.D.		
25) 1,1-Dichloroethane	0.000		0	N.D.		
26) MethylTertButylEther(M...	0.000		0	N.D.		
27) VinylAcetate	0.000		0	N.D.		
28) 2-Butanone(MEK)	0.000		0	N.D.		
29) cis-1,2-Dichloroethene	0.000		0	N.D.		
30) Hexane	0.000		0	N.D.		
31) Chloroform	0.000		0	N.D.		
32) EthylAcetate	12.154	43	109	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241304.D
Acq On : 24 Apr 2013 10:55
Operator : JJG
Sample : TO15 MB 042413
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 12:07:13 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
33) Tetrahydrofuran	0.000		0	N.D.
34) 1,2-Dichloroethane	0.000		0	N.D.
35) 1,1,1-Trichloroethane	0.000		0	N.D.
37) Benzene	13.955	78	2960	N.D.
38) CarbonTetrachloride	0.000		0	N.D.
39) Cyclohexane	0.000		0	N.D.
40) 1,2-Dichloropropane	15.435	63	110	N.D.
41) Bromodichloromethane	0.000		0	N.D.
42) 1,4-Dioxane	0.000		0	N.D.
43) Trichloroethene(TCE)	0.000		0	N.D.
44) 2,2,4-Trimethylpentane	14.918	57	919	N.D.
45) Heptane	0.000		0	N.D.
46) cis-1,3-Dichloropropene	0.000		0	N.D.
47) 4-Methyl-2-pentanone(M...	0.000		0	N.D.
48) trans-1,3-Dichloropropene	0.000		0	N.D.
49) 1,1,2-Trichloroethane	0.000		0	N.D.
50) Toluene	17.700	91	1122	N.D.
51) 2-Hexanone(MBK)	0.000		0	N.D.
52) Dibromochloromethane	0.000		0	N.D.
53) 1,2-Dibromoethane	0.000		0	N.D.
54) Tetrachloroethene(PCE)	0.000		0	N.D.
56) Chlorobenzene	20.303	114	849	N.D.
57) Ethylbenzene	20.731	91	874	N.D.
58) m&p-Xylene	20.981	106	645	N.D.
59) Bromoform	0.000		0	N.D.
60) Styrene	21.694	104	695	N.D.
61) 1,1,2,2-Tetrachloroethane	22.354	83	439	N.D.
62) o-Xylene	21.712	91	575	N.D.
64) 4-Ethyltoluene	23.727	120	435	N.D.
65) 1,3,5-Trimethylbenzene	23.798	120	397	N.D.
66) 1,2,4-Trimethylbenzene	24.565	120	412	N.D.
67) BenzylChloride(a-Chlor...	25.225	91	914	N.D.
68) 1,3-Dichlorobenzene	25.082	146	2356	N.D.
69) 1,4-Dichlorobenzene	25.296	146	3100	N.D.
70) 1,2-Dichlorobenzene	25.867	146	1544	N.D.
71) 1,2,4-Trichlorobenzene	29.576	180	2266	N.D.
72) Hexachlorobutadiene	30.075	225	1154	N.D.

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\MS03\2013\042413\
Data File : 04241304.D
Acq On : 24 Apr 2013 10:55
Operator : JJG
Sample : TO15 MB 042413
Misc : IS/Surr: PS082712-02 + 500mL
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 12:07:13 2013
Quant Method : C:\msdchem\1\METHODS\2013\041813.M
Quant Title : TO-15/TO-14
QLast Update : Thu Apr 18 19:34:22 2013
Response via : Initial Calibration